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EDITORIAL

THE DRAUGHTSMAN OR ARCHITECT—THE PANAMA-PACIFIC INTERNATIONAL EXHIBITION—CHANGES IN NEW YORK BUSINESS CENTERS—FRENCH MEDALS FOR M. I. T. STUDENTS

WHEN a number of architects get together and begin discussing other members of the profession, one finds nothing more common than the expression of opinion that a certain architect does not design his own work, but is dependent upon some draughtsman or group of draughtsmen, for whom he is little more than a financial agent, although he reaps almost the entire financial reward, and one finds too accompanying these requirements, regret that draughtsmen of such great ability should not be in a position to do independent work and gain fame and money and position for themselves and not for their employer. There is no doubt but that in certain cases these strictures are justified in full, but also there is no doubt that there are other cases where the cleverest draughtsmen in the world produce excellent design under competent direction, and left to their own devices are unable to get very good results. Between these poles lie all sorts of intermediate cases. One is apt to forget that architecture does not consist in making good drawings, but in the erection of good buildings, and although in many cases a good designer is a good draughtsman, there are also times when good draughtsmanship obscures bad architecture. Mr. Magonigle was for years known as one of the best, if not the best draughtsman in the country, and he is also a most exquisite designer, as has been proved by the work which he has done during his independent practice. On the other hand, it is said that Mr. Kendall, who is a partner in the firm of McKim, Mead & White, is a man whose drawing is said to be both hesitating and amateurish, although there is practically no man in the country today whose design is so exquisite. Mr. Goodhue is, of course, famous for his wonderful pen and ink perspectives, in doing which a large part of his design is developed, while Mr. Lindeberg depends upon the simplest blocking out of his masses without any drawing of detail to guide him in determining proportions. It is noteworthy, however, that both of these two latter men, whose work is extraordinarily sympathetic, design largely in perspective, thinking of the forms as solids and not as plains, and perhaps their success arises from this method of considering their work.

It would be neither kind nor proper to quote instances of good draughtsmen who have not been successful as archi-

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tects, but such cases will occur to every practicing architect. One of the best draughtsmen the writer has ever known was remarkable both for the design and detail of buildings in the Gothic style during his employment by a well known New York office, but apparently this was forced upon him, and not instinctive, since his own practice has consisted largely of Classic structures which have been hideously unsuccessful. Another draughtsman whose name is well known to all of us has repeatedly been successful in competitions where he has worked up the scheme for other architects, and yet has never succeeded in winning anything for himself. Perhaps the condition of such men is analagous to that of a horse which under saddle can win races, but which running loose can be easily worn down and captured. There are many of us who produce better work under conditions which restrain us than when we are given our heads by our clients, and the same thing seems to be true of the draughtsman and the architect under whom he works.

When we see work by any office which is of a uniform quality, whether this be good or bad, we can rest assured that it is the architect's own taste and ability which is displayed, although he may not be able to draw at all, but when an architect's office produces buildings of the utmost latitude in style and with extreme variations in quality, we can be pretty confident that the architect is depending entirely upon his draughtsmen. There are even some men who have entered the architectural profession without any training at all, and who have become well known and deservedly successful, because they knew how to get their ideas produced, although they were perhaps unable to produce them themselves. A notable case in point is that of Mr. Wetmore of Warren & Wetmore, who was a lawyer before he entered architecture, and yet some of the best work of the office of Warren & Wetmore has been, it is said, produced under his immediate direction, because he has had the ability to select the proper men to do the drawing and to indicate to them the sort of thing he wished to get. Of course we cannot say with certainty that the men who have been doing this work under Mr. Wetmore would be unable to personally develop work of as high a quality, but people familiar with the office of Warren & Wetmore will realize how great a divergence there is in the tastes and training of men who have under the architect's direction designed stuff of very similar character.

Of course, there is another side to this question of draughtsman or architect which is little considered, and that is the case of good men who are producing under inferior heads work of inferior quality, and it is these men whose position is to be deplored, since they are receiving training which may debase their taste and render them eventually incapable of independent work of high quality or which will need a period of years to eliminate. Of course, every architect becomes greatly dependent upon draughtsmen who have been in his office a long time, who are thoroughly familiar with his methods of design, and are able to produce the results he desires without too much watching and supervision, and these men are apt to fancy themselves largely responsible for the design which proceeds from that office, especially since most architects are only too willing to give their draughtsmen the uttermost credit for their work, but when such a draughtsman leaves an office his employer finds that the gap can be quickly filled, and that there are numbers of other young men who can at once fall into his ways of thinking and can produce the character of design that he likes.

Great care must be taken in making the assertion that any architect is dependent upon his draughtsman, to be sure it is so; for with the exception of *downright* dishonesty there is no imputation more bitterly and more properly resented than this one; and one finds that draughtsmen who have claimed to be responsible for the work of other men, when they take up their own practice, either forget it or find themselves unable to make good on their own account.

OF all classes of craftsmen who will visit the Panama-Pacific International Exposition in 1915, there will be none whose delight will be keener or whose interest more general than the architect and the architectural engineer.

The exposition itself will be a huge and superb exhibit of the genius of architects. From the Palace of Machinery, which is the largest wooden structure in the world, to the Palace of Fine Arts which will be constructed to conform with every modern demand for "class A" fireproof structures, the grounds will be constant challenge to the attention and interest of the architect. The reclamation of the exposition site will be likely to engross the attention of the architectural engineer who is acquainted even superficially with the problems of pre-exposition preparation when much of the 635 acres of exposition domain was marsh and tide land, submerged in the waters of San Francisco Bay, or the abode of the long legged water bird and the clam.

But supplementing the architectural display represented by the exposition itself, there will be found in the Palace of Liberal Arts, a splendidly comprehensive exhibit of data, drawings, models and photographs related to archcitecture; there will be also an equally comprehensive display in the exhibit of architectural engineering. Here will be shown the models and working plans of public and commercial buildings, large and small dwelling houses, flats, apartment houses, models, detail drawings and specifications for foundation walls, partitions, floors, roofs, stairways and wood and metal framing, while there will be great general interest in the safety contrivances provided against the terrors of panic and danger by fire, as well as in novel means of convenience provided by such media as moving stairways, elevators, etc.

The displays of drawings and models of public buildings will be particularly effective and comprehensive, showing to what extent the various needs of complicated metropolitan life have been cared for by the designer of modern structures, hospital buildings, court houses, hotels, bank buildings, libraries, boat houses, tennis courts, gymnasiums, riding academies, stables, stations, lodge buildings, churches and most important of all, homes.

These models and designs of ideal homes will range through all degrees of elegance, and will not only include dwellings in their entirety but special designs of particular rooms such as dining and bedrooms, library and drawing rooms, model kitchens and even model pantries, so that the visitor who contemplates building a home of his own will here find a thousand hints to be utilized to his lasting advantage.

Architects who have specialized in various lines of their splendid profession will here provide the world with a view of the latest developments of their art and there will not be a problem which the builder encounters but will be covered by the displays which the greatest architects in the world will disclose in the Palace of Liberal Arts. The assurance of the complete character of the exhibit is direct from the host of proposed participants themselves and from those whose earnest inquiries indicate their intended participation.

PEOPLE who have been living in New York, and especially the real estate men and the architects, have been greatly interested in the manner in which business centers, during the past few years, have shifted without apparent reason. Each business of any importance in New York has always had its own "particular" district, and during the past three years the centers of many of these districts have been entirely changed, either without reason, or for reasons which are difficult to understand. These changes have resulted naturally in an immense appreciation of the value of the property in the neighborhoods to which the changes have been made; with corresponding depreciation in the districts which they have left behind, and it may be interesting to the architects of New York to consider some of these changes, and also to suggest means by which some of the intermediate districts may be improved in value.

The most obvious of these is of course the shifting of the retail dry goods district, and the beautiful development of Fifth Avenue resulting from it, and the explanation of this change is apparently simple, since it is a process which has been a continuing one from very early times. New York like every other big city was some years ago a city of small shops, over-shadowed by the great department stores. The pendulum now seems to be swinging in the opposite direction, and the small shops devoted to the several branches of the dry goods trade have been becoming more and more popular and more and more interesting, while a number of the weaker of the department stores (either financially or in attractiveness to the public) have been closed. The aim of the small shops is of course to be as close to the customer as possible, and during the past ten years they have been edging up into the residence district with a corresponding retreat of the residence district before them, until now Fifth Avenue, which used to be purely a residence street from 23rd Street north, has become commercialized as far as the Plaza, and in this process has carried with it the side streets between Broadway and Madison Avenue. This has left Broadway below 23rd Street, and what were formerly the great cross town streets, 23rd and 14th Streets, more or less stranded with whole blocks of buildings vacant, and while the new Fifth Avenue is perhaps one of the handsomest streets in the world, the old Broadway is almost pathetic in its deserted condition.

Next in importance to this change in the location of the retail dry goods business has been a corresponding change in the location of the wholesale dry goods trade; the old centers of this dry goods trade used to be on the edge of the financial district and comprised the blocks of Worth, Leonard, Franklin and other streets off lower Broadway; these blocks are many of them now vacant and their owners are not finding tenants of any class at all for these buildings. A similar revolution has taken place in the fur trade, which has moved from the region of Washington Square to the neighborhood of 26th and 27th Streets, between Broadway and Sixth Avenue. The reason for the change in the retail business is comparatively simple, and was, as before said, due to a desire on the part of the smaller shops to get near their customers; a change which was followed by the larger department stores catering to more expensive trade and by the other department stores to some extent at least. The department stores which remain down town, as for example Wanamaker's and Siegel-Cooper's have a clientele which is not dependent in the main upon residents of New York, and have therefore been able to retain their old positions on the central lines of traffic, the subway, elevated, and the Hudson tunnels. This has made the part of the city on Manhattan Island a city with practically three business centers, one in the financial district, a second about 42nd Street and Fifth Avenue, and the third at 125th Street and Seventh Avenue, and between the upper two of these lies the best part of the residence district of New York, including practically all of the higher grade residences, and most of the apartment houses of good character, but between the lower two of these, or rather between 23rd Street and Leonard Street, is a vast district where property values have depreciated, and which is devoted to no particular function of city life. It seems to the writer that in this district lies a fortune for a capable real estate man and the architect, in its development into a secondary residence district, not for the wealthier classes but for the poorer, and the housing of these classes is after all a means of revenue both surer and greater than can be obtained through housing the wealthy. The rivers on both sides are fringed with factories, the workers in which, owing to the congestion on the lower East side, have to come from Brooklyn and the Bronx. The buildings (with comparatively few exceptions) in the center of this district are old, small and cheap, and even were the former trade to return, which is practically an impossibility, it would never again yield an interest on the investment. The transformation of these many city blocks into apartment houses and tenement houses would give the workers of the city housing accommodation within walking distance of either the factories, the stores, or the offices, located on the East and West, and on the North and on the South respectively. The question of car-fare is a vital one with men or women who sell their labor for from six to fourteen dollars a week. Of course the average architect waits until some real estate man points out to him the desirability of building before he can see it himself, but with the great growth of interest in the profession on the subject of city planning and development the profession should in turn be in a position to point out to the real estate men and their clients possibilities too broad for them to readily grasp. City planning is not confined to the development of adequate parking space or suitable placing of public buildings, but to the cheap and convenient housing of the population, and of its factories as well. The tendency of people interested in New York real estate to follow their bellwether like a flock of sheep, has resulted in this rather curious condition of affairs, but the first enterprising man who sees the possibilities of this new use for discarded property is liable to make a fortune.

There is one other factor which should be taken into consideration in New York realty, and that is the limitation of the height of buildings which must soon come in some form or another under the law; the sky scraper has inflated the value of property beyond the normal, and correspondingly decreased the value of property only a few squares away from the sky scraper district. We, in New York, instead of being proud of our sky scrapers, simply because they are built high, should, as a matter of fact, be in terror of their further increase. The condition of lower New York at the present time when twenty story buildings are emptying their occupants into a one story street, is crowded beyond reason, and even the condition of the light manufacturing districts in New York, where twelve story loft buildings at the lunch hour and at night overflow Fifth Avenue and its surrounding streets with a swarm of human beings so dense that walking is almost impossible among them, is fast becoming intolerable, and such a condition cannot be permitted to extend. Were there a good reason for this crowding it might be accepted with such complacency as we could muster, but as a matter of fact there is none: the financial district in New York is crowded with twenty-four story buildings extending North and South for ten or twelve blocks, not from river to river but between Greenwich and William Streets, and on either side and quite as close to Wall Street as the northerly or southerly limits of the districts, lie scores of small buildings occupied by the meanest sorts of tenements. Washington Street is the Armenian quarter with small brick houses of both aged and flimsy construction, and one has only to cross Greenwich Street going west, to perceive the immediate character of the changes in the neighborhood. Lower New York accessible to the financial district is by no means built up to its fullest extent, and there does not appear such an immediate prospect that it will be so built, as to necessitate the further construction of buildings of from fourteen to thirty stories in height.

Now these conditions which exist here in New York are but typical of those in every moderate sized city in the country. In every city in which the character of any of the streets is at all fixed there are other streets in the immediate neighborhood which a single good building would at once redeem, and a good building in an off district because of the low price of land, can be rented at a price so much lower than that of a similar building in a sought for district, which may be only one hundred feet away, that it instantly becomes attractive, with a corresponding gain in all neighboring land values and an infinitely better prospect of adequate financial return. This may be a problem for real estate people only, and one in which architects have no active interest, but the function of the architect should not be limited to the design of a pretty facade or the arrangement of a good plan, but should include all problems of civic betterment, and of financial return to his client. Architect's today are gaining much higher standing in their respective communities, purely because of their realization of this most important fact, and every point in which the profession becomes more useful to the community will result, not only in a sentimental re-valuation of the architect's services, but in a financial one.

THE Department of Architecture of the Massachusetts Institute of Technology has recently received word from the Societe des Architectes Diplomes par le Gouvernement that at its last meeting it voted to put at the disposition of the Technology Department of Architecture two medals, one of gold, the other of silver, to be awarded annually in competition. This competition will be held in the fourth and fifth year classes in Design.

This follows the plan of the "Prix Americain," an annual competition at the Ecole des Beaux Arts, founded by American students in recognition of their indebtedness to the French school. The program for this prize always calls for a subject distinctly American in character. The Competition for the medals of the Societe des Architectes Diplomes Francais at Technology will have for its problem a characteristic French subject.

The society which has donated these medals is composed of graduates of the Ecole des Beaux Arts. It is the first instance of an American school of architecture receiving encouragement in this particular form. It is of still further significance for the reason that the Department of Architecture at Technology has from its inception adapted its methods of instruction from those of the Beaux Arts, and the directors of its courses in Design, Professor Letang and Professor Despradelle, were notable graduates of the French school.

ARCHITECTURAL CRITICISM

THE ANTHONY HOME—THE CHURCH OF ALL SOULS IN THE EAST—THE ST. ELMO CLUB—THE SAN FRANCISCO MASONIC TEMPLE—THE AITKEN GARAGE

THE latest hotel for young working women in New York City—"Anthony Home" (Plate XXX)—just erected by Mr. and Mrs. Fred'k W. Vanderbilt from designs of Valentine & Kissam, architects, is a model contribution in its field to the movement for social betterment in housing.

This building was specifically designed for solving the problem of enabling self-supporting young women under 40 years of age earning a minimum wage to live comfortably, and make a small monthly saving, in a Home conducted without a multitude of irksome rules. It is not proposed to take care of transients, but to receive long term or permanent guests.

The building is seven stories high on a lot 50′ front x 98′ 9″ deep. It rests on solid rock, is of fire-proof construction throughout, and after the excavation had been completed it was erected in ten months time. The construction of the building was carried out by Wm. L. Crow Construction Co.

In design the building is of the Georgian style. The facade is of grey limestone in coursed channeled ashlar for the first story and in coursed ashlar for the second story; the next four stories are laid in Dutch broken bond, diaper pattern, showing black headers, of selected Harvard brick with wide mortar joints pressed back; the top story, the main cornice and the trim of the pergola piers on the roof are all of a limestone colored terra cotta.

The main entrance is through a memorial gate-way on the building line and street level at the center of the front to a recessed court which is almost wholly sheltered from rain and wind by a glass and iron portico. Under the portico some few steps lead down to the doorway of the first floor level and others ascend to the main entrance at the second floor level. The entrance for employees and for supplies is at the street level into the first story by a gate and doorway located near the easterly party line of the property.

The new building is judged to best satisfy the conditions and meet the conspicuous need of furnishing for girls living away from home a dwelling place which is morally safe as well as thoroughly comfortable, faultlessly sanitary and completely fire-proof, with adequate provision for serving them with food both palatable and wholesome, and equipped to enable them to quickly do personal domestic services in the sewing room or in the laundry.

Erected on high priced land, still a residence street, though on the edge of the area of a new up-town business center, whereby tenants are enabled to walk back and forth to business, from carefully matured plans, solidly built and thoroughly equipped, it is wanting in nothing befitting its purpose.

After the selection of the architects for this work they were not turned loose to proceed at will, but were required at each step to submit their recommendations to the owners for judgment, and the owners weighed and decided the merits of adopting the recommendations submitted. Therefore, through the experience of the architects, who entertained various definite conclusions at which they had arrived as the result of years of diligent study of housing problems, and through the decisions of the owner as to what distinctive features suggested should be incorporated, the completed building is the result and example of an intelligent co-operation between owner and architect for producing a highly serviceable structure.

Though not of dimensions requiring that it conform to the regulations of the New York Fire Prevention Bureau, nevertheless its plans were voluntarily filed with the Fire Commissioner, and in all respects it was constructed and equipped in conformity with the Bureau's requirements. Among other things it has a water storage roof tank for fire service, a stand pipe, a fire pump in the cellar, hose reels, hose and special fire alarm call on each floor, while the stairs are enclosed in fire-proof walls throughout.

The plans were worked out with a view to realizing high sanitary ideals. There are no badly lighted, ill-ventilated spaces. Window openings to admit direct sunlight and unobstructed air circulation are provided for every hall-way as well as for every room in the building. There are no dark corners, no interior vent shafts of any kind anywhere and no enclosed courts to accumulate debris and retain at their bottoms chilled, pocketed stagnant foul air. Then as an additional fortification against possible unhygienic conditions, the plans were made so as to leave 100% more of the lot area unoccupied than was exacted for this building by the New York housing law. This last determination considerably reduced the possible total number of rentable rooms which could have been formed, with of course a perpetual proportional reduction in the income earning capacity of the building; it was therefore a tremendous concession to high ideals of healthfulness, perhaps long to remain unequalled in this intensely commercial day.

Dustless integral floor and base were laid throughout, plastered walls were oil painted, a vacuum cleaning plant provided for, a garbage incinerator set in the kitchen, a waste destructor special heater installed in the cellar for furnishing an independent abundance of hot water at all times, the vapor vacuum heating system adopted, and the entire cellar floor and walls up to street level treated to make them damp-proof. Finally, that the tired body and brain might be rested and refreshed in the open air, the roof was developed as a sheltered garden to be decorated with flower boxes and equipped with hammocks and settees and reached by both elevator and stairs.

The laundry occupies the rear cellar. So as to insure for it a flood of light and air, the back yard was excavated deep enough and its retaining walls painted white, with the result that a large bright laundry was obtained. It is equipped with porcelain tubs, ironing boards, stove, a steam dryer, all in sufficient number to accommodate twelve people. The balance of the cellar is occupied by store rooms, a mechanical plant, and a room containing steel racks for storing trunks.

The first story has living quarters for the janitor and his wife, dining room and sitting room for the maids, a room containing lockers for the tenants, a most complete kitchen, and a big front dining room large enough to receive all of the household at one time.

The second floor upon which the office is located has living quarters for the superintendent and for the matron and bed rooms for certain clerks; in addition to which, for the use of tenants of the large and small reception rooms, a library well stacked with good books, also used as a writing room, and a well-lighted sewing room. This last is furnished with sewing machines and can accommodate 10 people.

There are five main bed room floors, occupying the third to seventh stories inclusive, upon each of which there are eight single bed-rooms, seven double bed-rooms, one double sitting-room, and a general toilet. There are of course also linen and house maids closets on each of these floors. The building has in all 41 single bedrooms, and 45 double bedrooms, and each is provided with sufficient closets so that every inmate has her individual bedroom closet and a key for locking it up. The single rooms occupy 86 sq. ft. and the double rooms 122 sq. ft. each of floor area, and were proportioned in dimensions with a view to the location of the furniture intended to be placed in them.

Excluding suites for superintendent, matron, janitor and wife and room for some 12 employees, the building accommodates 114 tenants, should the sitting rooms on each of the five bedroom floors be used as double bedrooms. There are adequate toilet facilities in wash rooms on every floor of the building. Combination lighting has been provided for throughout, so that either gas or electric may be used. An elevator was installed with a travel for conveying passengers down to the trunk room in the cellar or up to the garden on the roof.

The conditions for housing those employed in the domestic department were equally well considered. The rooms in which they work were located so as to be ample in size, cool, bright and cheerful, and fully furnished with every modern convenience of labor saving devices for reducing the strain, as also the cost, of operating the building. Their bedrooms are as comfortable as those for tenants, and a separate large and cheerful dining room and sitting room was provided for their use at the rear of the first story of the building.

Founded on a high purpose, ably conducted by its superintendent, Miss Matilda C. Faulhaber, in conformity with its aims, Anthony Home has proved the conviction that young working women, desiring to be housed in healthful surroundings, are self-respecting human beings to be trusted to go and come under a minimum of restraint.

OF late years church architects have been completely emancipated from the bonds of the Richardsonesque architecture with which they were formerly so completely entangled, and have developed from this into four divergent types, of which the most interesting is the Gothic employed by Cram, Goodhue & Ferguson.

The Beaux Arts movement has produced a few churches of a high degree of merit, although the extreme artificiality and formalism of the style has a tendency to make religious sentiment appear theatrical. Some of the Catholic churches have turned back with great success in a few examples to Italian architecture, which is the proper traditional type, but probably owing to the dominant activities of a few inferior architects, in most instances without getting very far. The balance of the work has been done in a style resembling the Colonial Meeting Houses, but a lack of sympathy on the part of the architects who have worked with the style, has again militated against their success, and the really excellent modern churches of this character can be readily remembered and as easily counted. The best of them are the Church at Andover by McKim, Mead & White; that at Danbury by Howells & Stokes; the Christian Science Church in Youngstown by Janssen & Abbott, and the Brooklyn Church by Allen & Collens and Louis Jallade.

To these may now be added the Church of All Souls in the East, Summit, New Jersey, by Joy Wheeler Dow, (pages 63-65), the smallest and least pretentious and yet the best of the lot. In the first place, its architect is a man who possesses a very deep and real sympathy with the traditional work and he has departed very little from the strictly traditional architecture of this sort, which was, after all, an architecture built up by amateurs and not by trained men, so that while in the old buildings we find many things which may be better done, we find also an interest and picturesqueness beyond that which is possible to a man more strictly trained in scale and in proportion. Therefore, a building of this kind which has exactly the sympathetic feeling of the old work, without its errors, could have been designed only by a man like Mr. Dow, who is a thoroughly trained architect, and in addition is a man capable of putting himself into the frame of mind of the older architects and designing from within rather than from without. In other words, he has not applied detail copied from older work to a new design, but has designed from the beginning in true Colonial spirit.

There is no part of the structure which is without its particular and individual interest, but the scale has been held everywhere so that each portion finds itself in sympathetic relation with the other, and although a building like this may lack something of the modern spirit, it possesses individuality and personality of a far greater degree than the more formal and more (financially) important building.

THE typical city club house has long been the source of some of the most interesting architecture in this country, and of late years the Country Clubs and Golf Clubs have also had some very beautiful buildings erected for them. To these two classes of clubs has been added a third, the "College Club," which has proved more fruitful of really interesting architecture than either of the other two.

Most of the College Clubs are really neither City Clubs nor Country Clubs, in that they are not block front buildings, nor are they situated on large pieces of land which permit a rambling and informal type of structure. Another thing which has influenced their design is that they have properly conformed in style to that of the universities with which they were connected, and we have had at Princeton such beautiful buildings as the "Cap and Gown" and "Ivy" houses; at Harvard the "Lampoon" building and some of the fraternity houses, while now we find at Yale the splendid Club House illustrated in this article.

Yale has, in the matter of these clubs, lagged a little behind its sister universities, because the majority of the Yale Clubs were comfortably housed a number of years ago while architecture in general was at a very low ebb. The same thing has been true of the Yale University buildings, since they do not seem in the past to have been correlated with that same completeness as the work at Princeton especially, and also at Harvard. Now, however, we find at New Haven that the most part of the new work is being executed in Collegiate or Gothic style. The St. Elmo Club, Kenneth M. Murchison, architect (plates XXXII-IV), is the first to follow that style. Of course the famous old Yale societies "Bones" and "Keys" have houses from which they are not likely to depart, and each of these has an exterior which possesses a good deal of charm, despite the fact that neither of them is of very excellent architecture. Yet, as neither of them is really a club, the style which they have set has not been followed in the newer buildings.

St. Elmo is really a club, with bed rooms, lounging rooms and restaurant, and is likely to become a precedent for further work at Yale both because of its appropriateness to a club house of this character, and because of the intrinsic excellence of its design. It is differentiated from the college buildings proper by a change in material from stone to brick, with stone trim, and by a fuller and freer play of fancy than Haight & Githens have permitted themselves in the university buildings; it is semi-domestic rather than institutional in character although it is by no means playful, but rather dignified and solid. Mr. Murchison has arrived at a very happy mean between the residence and the collegiate hall, which exactly expresses the function and situation of this particular club, and the execution of the building has not lagged behind the thought.

EVERY village has long had its "Masonic Hall," and the country has gradually become familiar with buildings of a high degree of excellence for this society. The purposes for which the buildings are used permit unique composition; large dark spaces in the interior are needed which make plain wall surfaces possible, that would ruin the interiors of an ordinary commercial building. But we do not find that the average Masonic Temples have any common expression in a fixed and definite style. The earlier buildings in this country leaned pretty hard upon Egyptian tradition, but the later ones seem to have forgotten that such architecture was ever deemed appropriate, and we have in consequence buildings of all historical styles (and of no historical styles), used to house Masonic Temples. One of the best in this vicinity is the Brooklyn Temple, which everyone will remember. The San Francisco building, Bliss & Faville, architects (Plates XXXV-XLI), while of almost equal interest, is of an entirely different character. Its authors have adopted a sort of Hispano-Morescan type, somewhat reminiscent of traditional coast architecture, and which conveys to the mind some sense of appropriateness to its purpose. The building could be hardly anything else but a lodge building, and while it is fully expressive of its purpose, it is also an excellent piece of architectural design.

The interiors are of an interesting character, but without knowledge of their colors one could not feel it possible to adequately criticise them. The designs have been considered with regard to color rather than relief, and while there is something fascinating about each of them, one feels that color is necessary to make them completely successful. The exterior is so adequately shown in the photographs that few remarks are needed. We might say that the difficult problem which was presented in a nearly solid facade supported on lower stories which could be used for shops, has been most satisfactorily solved, and the authors are greatly to be commended for departing from the traditional conventions as regards cornice treatment, and for the success of the departure. Machicolations suggest of course a mediæval fortress, and heighten the effect of closure and difficult entrance which sentimentally express the secret society; they have also been made to constitute a most excellent crowning motive for a facade which in its parts is Italian although the general effect of the whole is Spanish.

The wall surfaces are neither uninteresting nor has their real interest been attained by a textural surface, and the success with which the naked relations between window openings and surfaces have been managed, is to be commended in the highest degree.

THE purposes of a Private Garage should be obvious from its name. A brief outline, however, cannot fail to aid in the proper interpretation of the plans, which have been studied with strict consideration of the Municipal Laws, in combination with utility, and the finer architectural qualities necessary to make up a construction, authorized by an individual, to result in the proper housing of the cars and chauffeurs. This has been well worked out in the Aitken Garage, Howard M. Peck, architect (Page 60).

For this type of building we are apt to find a stereotyped design, with one large center opening, a window on one side, and a small door on the other, leading directly from the street to the chauffeur's apartments. This disposition of openings on the first floor makes an unbalanced elevation, but apparently has been used universally.

The Garage Regulations, as adopted 1912, by the Municipal Explosives Commission provide

> "that not more than two floors or stories above the Garage are occupied or used as living apartments, which apartments shall be separated from the Garage by unpierced fireproof walls and floors."

From this ruling it is plain that the stairs leading to the apartments cannot start in the garage proper, but, as seen on the accompanying plans, by entering first an open vestibule, and turning the stairs, this portion of the building is, theoretically, set back and the regulation adhered to. Practically, and architecturally from a design standpoint, the advantages gained should be worthy of consideration:

1st. The chauffeurs have access to the garage from their apartments without having to go out into the street.

2nd. The sliding entrance doors are pocketed, and are absolutely out of the way when open.

3rd. By turning the stairs there are gained five steps at the bottom, thus decreasing the allotment of hall space on the second floor, and allowing a uniform and consistent treatment in the arrangement of the rooms for the apartments.

4th. The elevation becomes uniform as regards to openings, permitting axial symmetry from top to bottom.

These are, therefore, the fundamental elements in the composition, and whereas they have nothing to do with the details, or with the further elaboration of the design, they became the most important factors in the planning.

Constructions of this type, appear recently to have better lines, and are altogether more pleasing, but we still find well built garages which have suffered by neglecting to obtain a symmetry in composition, and although these buildings are characteristic, there remains the stereotyped elevation referred to.

On the above analysis, it must be conceded that we have been influenced both by precedent, and the rules and regulations of the Fire and Building Departments. If these departments agreed, it would be a simple matter to follow the approved sections, but there remains a divergence of opinion on certain technical points. For example, it is apparently impossible to determine definitely under whose jurisdiction the installation of the oil separator should come. Heads of each department requiring a different method of procedure, it becomes difficult to comply with both.

As regards the detail of the construction, the question of lighting forms a most important part, and in this connection the choice of materials is a factor. In the garage proper the walls and entire ceiling are finished in imitation limestone, the use of wood being eliminated as far as possible. It has been found that caen stone is absorbent and susceptible to smoke and dirt; also that the necessary wear and tear on the entrance doors require these to be metal covered.

The walls of the court are faced with white enameled brick, and the use of this material as a wainscoting throughout the first floor greatly helps in reflecting the light, and keeps the room clean and sanitary. Up to and including the second floor, the entire construction is absolutely fire-proof, but excepting the exterior walls, the rest of the building is wood construction.

There are two gasoline pumps in the garage, with their respective tanks 3′ 0″ under the cellar floor. Each of these has a capacity of 265 gallons, and are filled from boxes located in the sidewalk by the curb. This part of the installation is covered by definite sections of the Garage Regulations and comes under the jurisdiction of the Bureau of Combustibles, Fire Department, City of New York.

SPECIFICATION WRITING

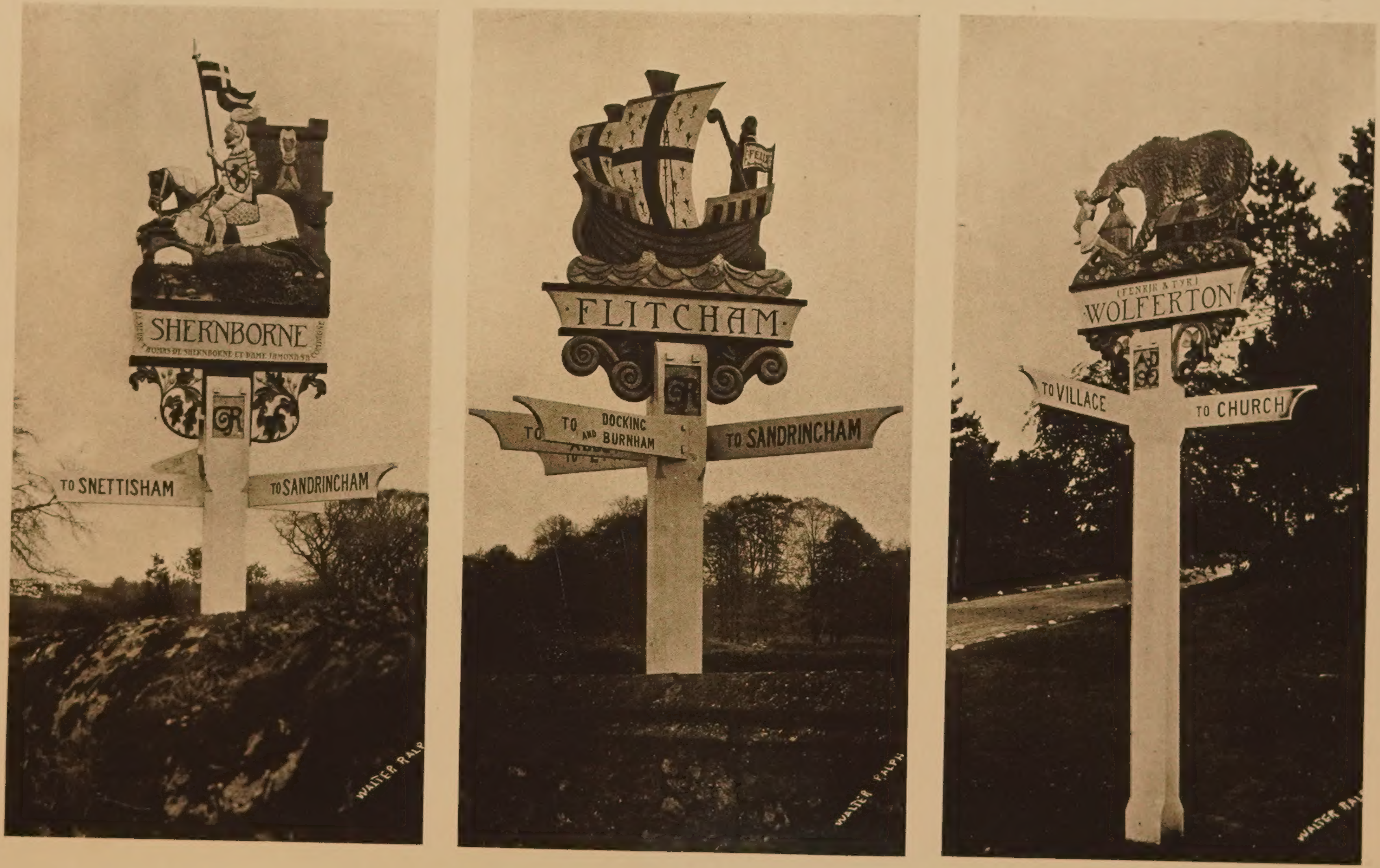
BY J F. HAMILTON

When an architect is incompetent he will intrench himself behind a series of general clauses which may be interpreted to mean anything or nothing.

AT the present time, when hustling is the order of the day, the desirability of adopting brevity in specification-writing is admitted by all engaged in building work; but if this end were attained either by ambiguity in description, or the omission of anything necessary to the due execution of the intended work, it would be disastrous to the interests of both client and builder, and inimical to the professional reputation of the architect who drafted the document. Only those having a thorough practical knowledge of building work should attempt specification-writing, and it is unfortunate that this experience is more likely to lead to prolixity than to brevity, for the many pitfalls known to the practical man can be avoided only by pointing them out, and he has to guard against them in a style of writing the reverse of concise.

It may therefore be taken for granted that the specification written by a competent architect will be long, for he will face difficulties in construction which would be avoided by a less capable man. Men frequently attempt to describe what they do not understand, and they usually become singularly dogmatic in the attempt. But the ordinary builder is not misled by such assurance, and, reading between the lines, he has no difficulty in assessing the architect's practical knowledge at its true value, and in acting accordingly. It follows that a specification for embodiment in any contract should be written by a man of extensive experience, who has the power to express himself clearly, tersely, and to the point. The certain sign of an amateur's work is his constantly falling back on the expression "to be done to the

(*Continued page 59*)



SIGN POSTS, SANDRINGHAM ESTATE, NORFOLK, ENGLAND.

(Continued from page 57)

satisfaction of the architect," for if he does not clearly see what he wants, and is at a loss for words to describe it, this formula is a very present help in time of trouble for him and his like.

To acquire the knack of concise specification-writing is not easy, for, like Euclid, there is no royal road to it. Plodding, diligence, and close attention, under the direction of a competent man, where possible, are necessary to attain even to the rudiments of the art. Listening to professors who endeavor by lecturing to impart a knowledge of building construction sufficient to enable the student to write a specification, is fatuous, and to attend any technical-school class with the same object in view is more so. It has been well said that if men took only half the trouble to go to Heaven that they take to go to the other place, their eternal happiness would be assured, and so it is with the subject under consideration. If a pupil devoted his energies to examining some building-work in situ, and writing a description of it, instead of using the eyes and brains of others, he would acquire facility for the work in half the time he takes to gain a smattering of it in classes, or from professional lecturers. Suppose a student of building construction examined for himself, say, an internal door in a good house, and sketched what he saw in his notebook, how much more likely he would be to gain a knowledge of specifying such a door than if he listened to lectures, or attended technical classes, where it is explained by diagrams at secondhand. Every house contains examples of different kinds of doors, and when a beginner has learned how to describe them concisely and accurately he may pass on to the windows, staircases, and floors, and thus, without leaving his own house, he can pursue an original line of study that will, if he is diligent, make him more than a match for the men trained in classrooms.

Books have been published containing specifications for various buildings; but no work has yet been written on the art of specification-writing. The various styles of architecture have been lucidly described, and now that the ornamental portions of the art are so well illustrated in books and journals, it is surely not too much to expect that professors and masters of the subject will describe up-to-date methods of building construction, and so help us to live in the Twentieth Century, instead of harking back to others as old as 300 B. C. Few architects in good practice write the necessary specifications for their own buildings. This work is turned over to an assistant, or the quantity surveyor, and these documents are always regarded as nuisances; hence the present generation try to shirk the work by scribbling a belated description of it all over the drawings, and others press the quantities into service on a kind of condensed specification. With every care, accidental mistakes occur in the documents, and they invariably lead to a lawsuit, or, what is worse, to an arbitration, both of which are ruinously expensive, and satisfy no one but the lawyer.

When an architect is incompetent, he will entrench himself behind a series of general clauses, which may be interpreted to mean anything or nothing; they are as vague as they are provoking, and this must always be the case where a man attempts to describe what he has no clear idea of. Architects should recollect that carelessness in specification-writing must of necessity leave the builder in doubt as to what is meant, and this uncertainty will compel him to apply to the architect for some explanation of what is really the object of the doubtful clause, thus leading to an immense waste of time, besides worry, and, perhaps, loss of temper. Disputes sometimes arise on a building over the meaning of the drawing, but much more frequently over the specifications, and if the architect carries everything with a high hand, and the builder feels aggrieved, then a state of things exists which is inimical to the execution of good work, and the employers must suffer. Every properly-written specification should avoid all law terms, and this may be done by leaving the preparation of the contract to lawyers.

A specification may be divided into trades, such as mason, carpenter, etc., or it may be arranged so as to deal with floors, roofs, walls, windows, doors, etc., all, of course, under different headings; but whatever plan is adopted, marginal references should always be employed, and numbered, for facilitating reference. A specification written en bloc is a nuisance, for the waste of time in looking for an item is often great, and it should be avoided. Marginal references are, in reality, a kind of index; but, if the references or the pages are numbered, a proper index should be made and bound up with the document.

Looking down on ordinary specifications, it will be seen that some items have a purely legal bearing. These are "conditions of contract." Others describe the nature of the relation of builder and architect throughout the work. Some are of general import, and may be applied to any building, while others are special and can only apply to the building in hand. A specification may, therefore, with advantage be divided into four heads—namely, Legal, Personal, General Technical, and Special Technical. The first three might well be typed and kept for general use. The "special" claims must, of course, be written to suit each separate building.

It is most important to guard against dry-rot in a building, and the specification should provide for the ventilation of all spaces in floors and under floors where timber is employed; in fact, the architect should make such provision that the seasoning of the timber shall go on after it is fixed in the building, and in no case should it be exposed to damp, stagnant air. If it is, three or four years will be the limit of its existence as sound timber, even if it is pitch-pine. The use of unseasoned wood in timbers that are not framed does not matter much; but in roof principals, and in joiner's work, it would be disastrous. To write a concise specification that shall at the same time be explicit is, we repeat, the work of a man who has had an extensive and wide practice, to which he has given his personal attention.

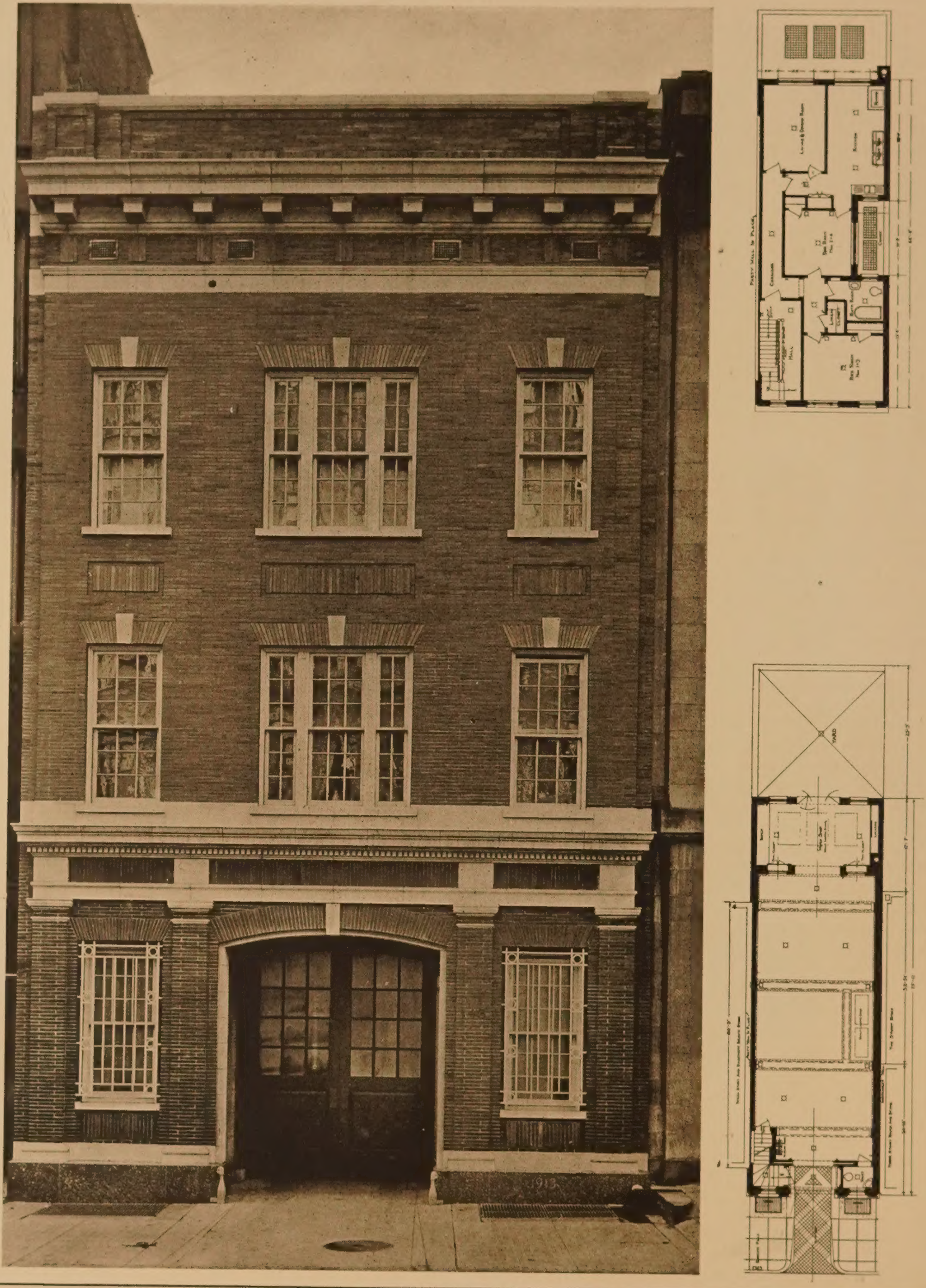
THE ELEMENTS OF ARCHITECTURE

BY F. H. WARNER

If architecture has become debased, expressionless and void of sincerity, those who seek for something living and true may do well to build up from studied elemental form rather than allow their minds to be paralyzed with mere machine-like production.

ALL architecture is reducible to certain elemental form—masses, large and small, defined by proportionate lines and spaces, as made out by essentially constructional features. These masses must make certain impressions by means of the eye upon the brain. The study of such primitive

(Continued page 61)



GARAGE, JOHN W. AITKEN, 146 EAST 53D ST., NEW YORK

Howard Peck, Architect

(*Continued from page 59*)

masses must be the need of an age not lacking in constructional ingenuity and resource; for if we hold that it is merely fitness for purpose that gives architectural expression, when we have erected our skeleton of riveted steel stanchions, girders, and joists and concrete floors, all this, being essentially fit and constructional, should yield an expression of architecture. If, however, we fail to find in such a structure any kind of architectural merit, in spite of its evident constructional suitability, we may perhaps recognize that mere fitness for practical purpose does not constitute architecture. If, further, we find no merit in mechanical, line-for-line copying of ancient example and precedent, then we are driven to conclude that if we desire novelty together with true beauty, the actual forms and shapes of building parts must be studied on purely æsthetic grounds.

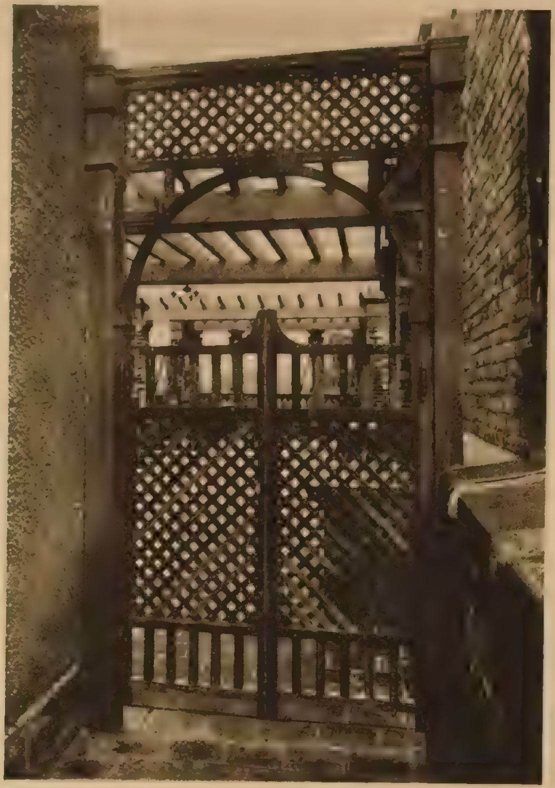
Unattractive such study may be when compared with that of beautiful old architecture in its full glory of association, memory, and time-weathering. Nevertheless, it is of importance in the highest type of architectural design, where beauty is sought to be expressed in the monotone of simple stone or marble, and where we long for the impulse which inspired the masters of ancient Classic design. To the lack of this study of architectural form, in its abstract expression—to the attachment of a definite art value to the form of a brick or a simple stone block, and to the ignoring of color, texture and other incidentals—we must assign the prevalence of ungainly mass and commonplace detail. Led away by obvious beauty of brick and tile, as giving eye-delighting effects, we pass, without comment, uncouth shape of building masses. If ever our consciences prick us in this respect, we stifle it by falling back on quaintness and "parasitical sublimity." Modern domestic architecture, of the second grade, is in this way, a great offender against architectural euphony of mass-form and outline. Breaking up regular building masses into so-called "picturesque" fragments is a characteristic. If we carefully examine the works of acknowledged masters, who endeavor to avoid distortion in fundamental outline, we see that such seek to give variety of effect by minor additions and subtractions rather than by warping and distorting the main building mass.

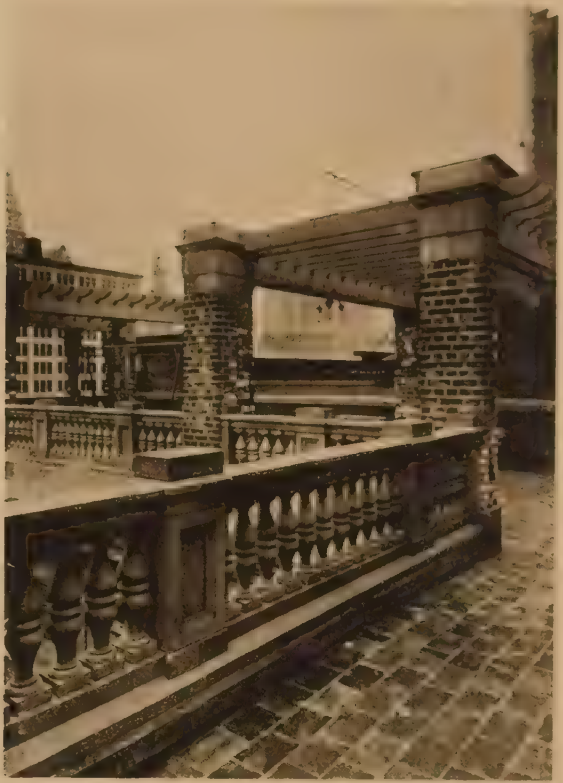
For the avoidance of this evil, which becomes repulsive where we find ungainly distortion of mass in important public buildings, the abstract study of architectural form may prove effective. Such study may be applied not alone to main masses but to the most humble accessory parts and most minute details; for, as we have suggested, a brick, and a stone block must have an æsthetic value, quite apart from constructionalism and practical purpose, on the one hand, and color and texture on the other.

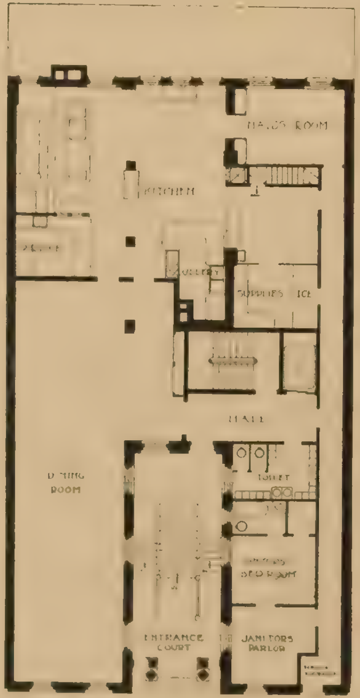
Whatever might be the result, endeavors on such lines would be praiseworthy; and, consistently followed out, with sincere effort to produce, to the best of our ability, intrinsic beauty and not so-called novelty for its own sake, they would certainly earn the appreciation of the cultivated and intelligent, while servile copying of precedent deservedly evokes contempt or ridicule. Often, when human affairs become greatly entangled and degenerate, the one real step to better results is complete demolition, in the sure and certain hope of blessed resurrection of the good and true from the dead things of the past.

If architecture has become debased, expressionless, and void of sincerity, those who seek for something living and true may do well to build up from studied elemental form, rather than allow their minds to be paralyzed by mere machine-like production. Let us grasp fundamentals, and remark how all created things are composed of either or both angular or curvilinear forms and that, as something truly basic, we appreciate the one only as and when contrasted with the other; that is to say, we can estimate only a very flat curve, as such, by close juxtaposition to a truly straight line. The appreciation we feel for smooth rotundity is largely a measure of the amount of contrast present in its opposite—sharp and spiny rectangularity. Much as we may criticize it, coarse and crude as is the plain column rusticated with clumsy square blocks, it cannot be denied that over and above the mere emphasis of construction, itself justifiable, the sharp edges, where the planes of the rusticating blocks meet, give added value to the roundness of the columns, and *per contra.* Architectural form, like all other, is either angular or curvilinear, even in that which for want of a better term, we call "broken" form, such as pertains throughout Nature in her rocks, and rugged and gnarled oak boles, and in other objects in the inanimate world. In great abundance, in building, such broken form gives a variety of texture. It breaks up and scatters light and shade like summer cloud. It is well shown in rich Gothic building where a profusion of crocketing breaks sun and shadow into variously-isolated masses, producing an effect that pertains neither to the straight line of fluting or cornice, nor to curve of acanthus and volute. It is "texture" on a large scale, and has a light dispersing effect, inherent largely in all time-worn building of rich design. If, however, this "broken" form in architecture be carefully considered, it necessarily must also prove to be an intermingling of the two primary forms, angular and curvilinear. We therefore come back to the original premise: that the elemental parts of architecture are born of the straight line or curve. This being so, we may set down that one great principle in design must rest upon the fact that curvilinear surfaces give one impression, and angular bodies give another. In the harmonious co-ordination of curve and straight line we may look for a leading principle in composition. The ultimate effect of the two main classes of form differ. It seems fundamental that, in Nature, round and sharp, used in close and constant contrast, please. All natural objects, as leaves and flowers, are self-balancing, the smooth flow of curve being opposed to angular points, as in the terminations of lunette-shaped petals. In architecture we have to do with basic forms composed of straight lines, and such lines may be employed as foils to curved lines and surfaces, as seen in the arrow-like lines of the sharp arris in geometrical design, which, catching the light, seem to give value to broken enrichment and rich curvilinear form, as in elaborate gables, harshly, one might think, with their rigid lines of geometry, as in the triangle that forms the gable. Yet the whole effect is one of enhancement, as where the youthful ivy, clinging to, and climbing up a hollow in the old church-door jamb gives value to the rigid parallelism of the mouldings; or where the bell of a capital, soft and round, is wreathed in oak and vine-leaf, crisp and sharp, broken and reflex, seeming by direct contrast of piquant angular part, to set off, present a foil, to the gentle lines of the bell. Although there is here strictly no straight line there are yet the basic forms angular and curvilinear. The acanthus is graceful, and twines about like weeping willow; but it contains in itself—in its own detail—spiny angle and acute forms, without which excess of sweetly turned outline might cloy.

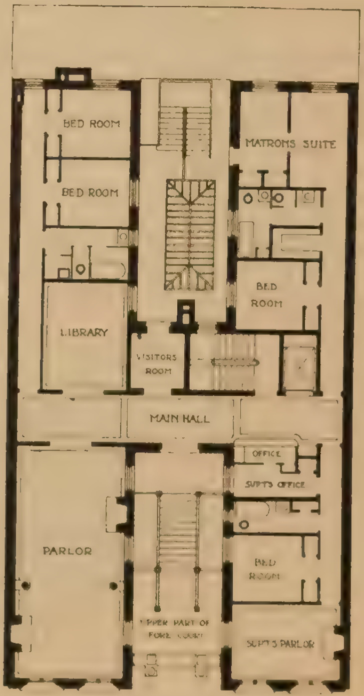
(*Continued page 73*)



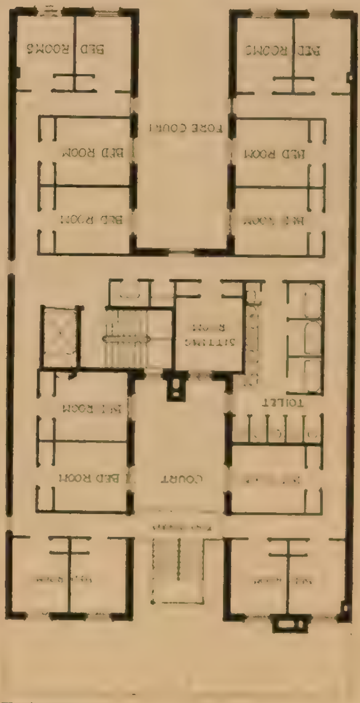




First Floor.

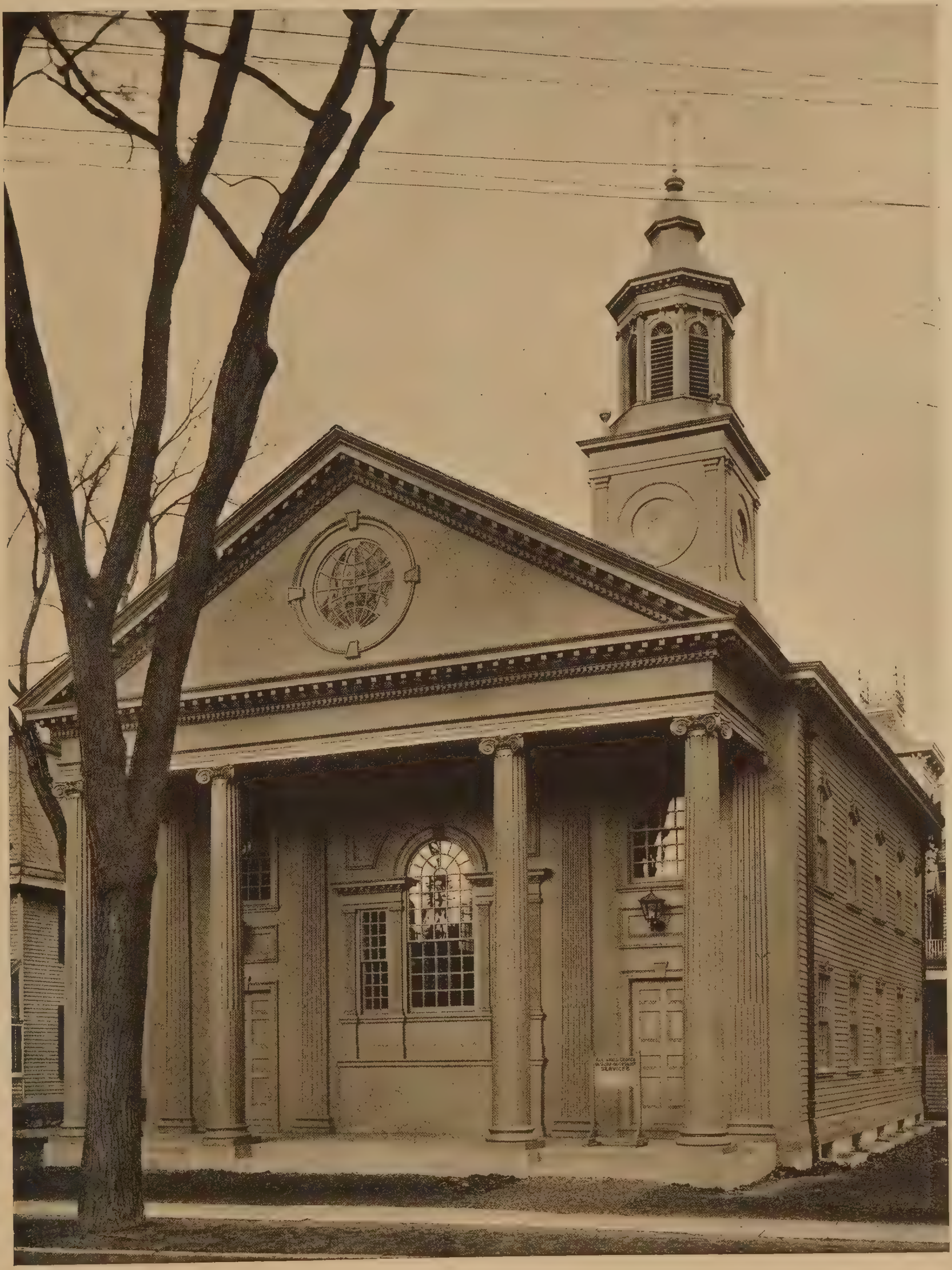


Second Floor



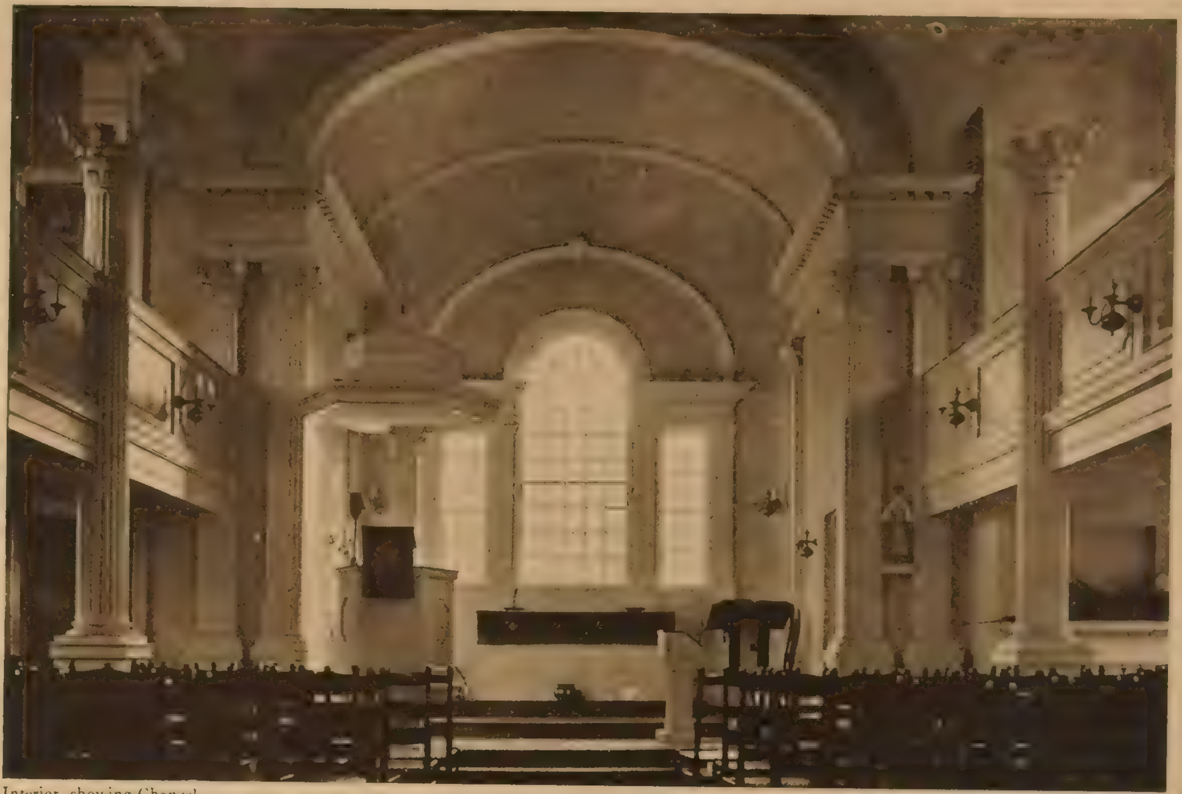
Typical Floor.

DETAILS, ROOF GARDEN, AND PLANS, ANTHONY HOME, NEW YORK. Valentine & Kissam, Architects.

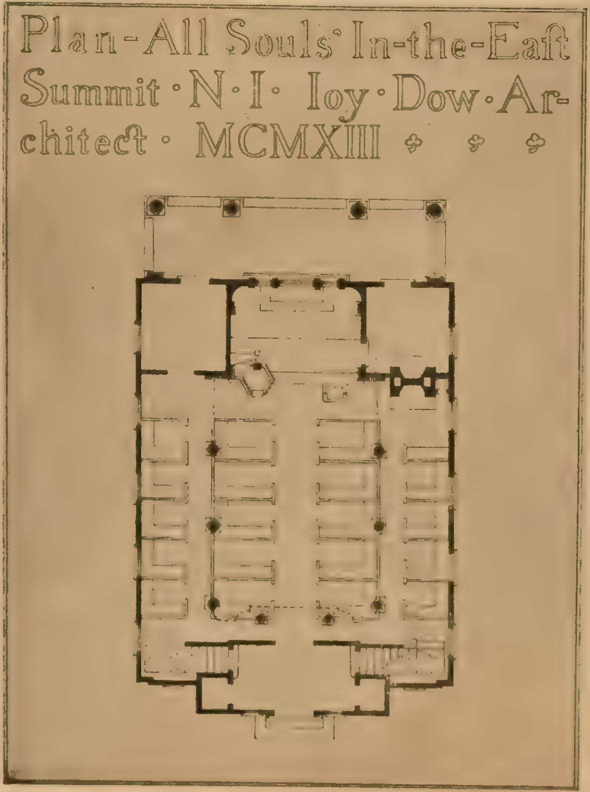


UNITARIAN MEETING HOUSE, SUMMIT, N. J.

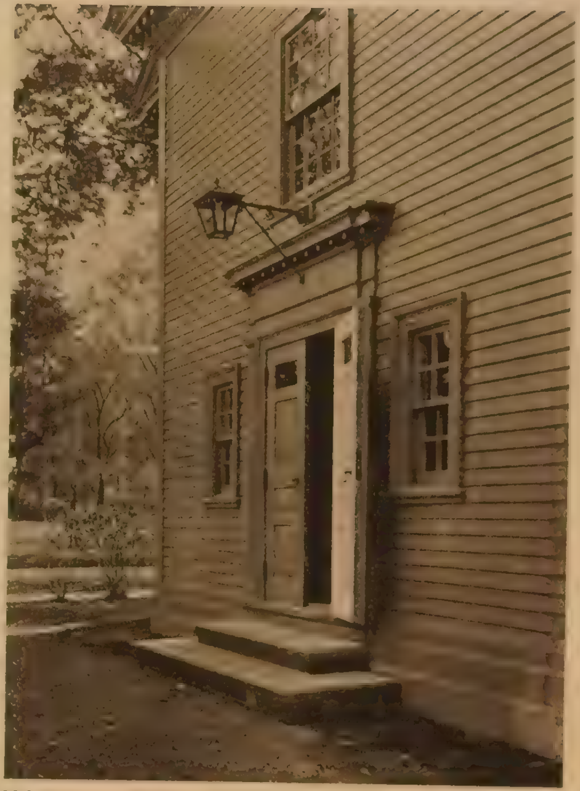
Joy Wheeler Dow, Architect.



Interior, showing Chancel.



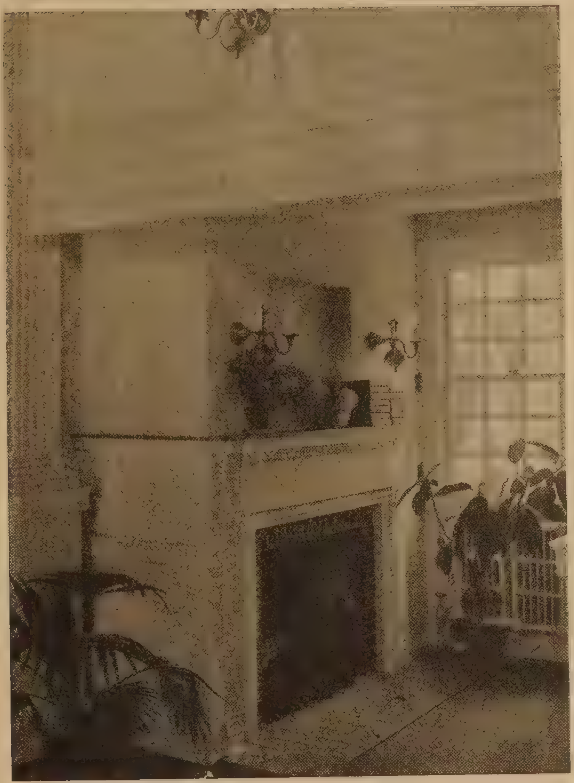
Plan.



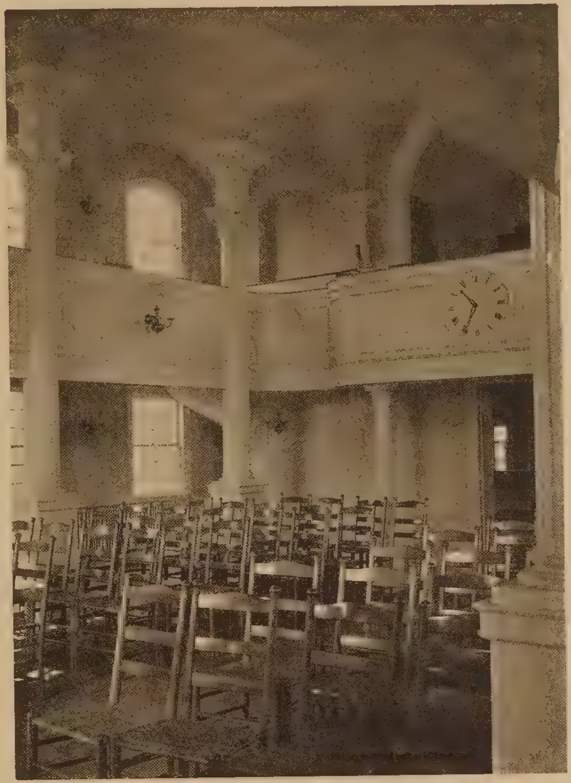
Main Entrance on Waldron Ave.

UNITARIAN MEETING HOUSE, SUMMIT, N. J.

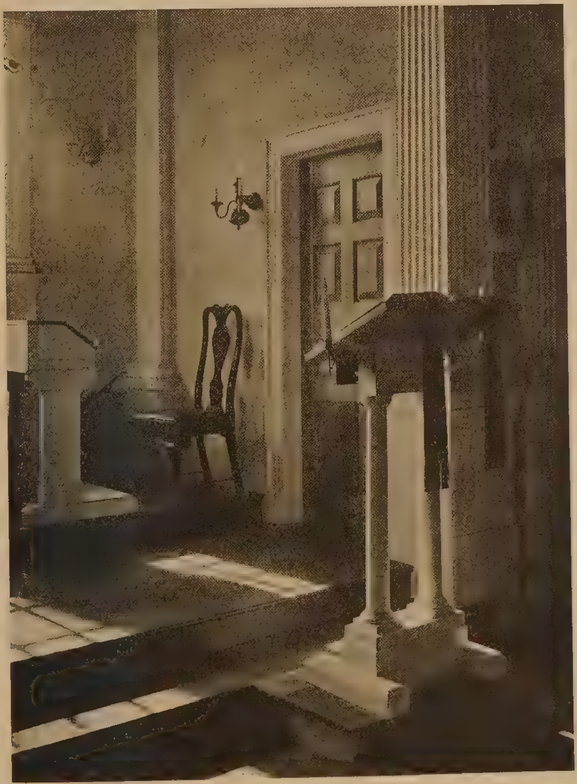
Joy Wheeler Dow, Architect



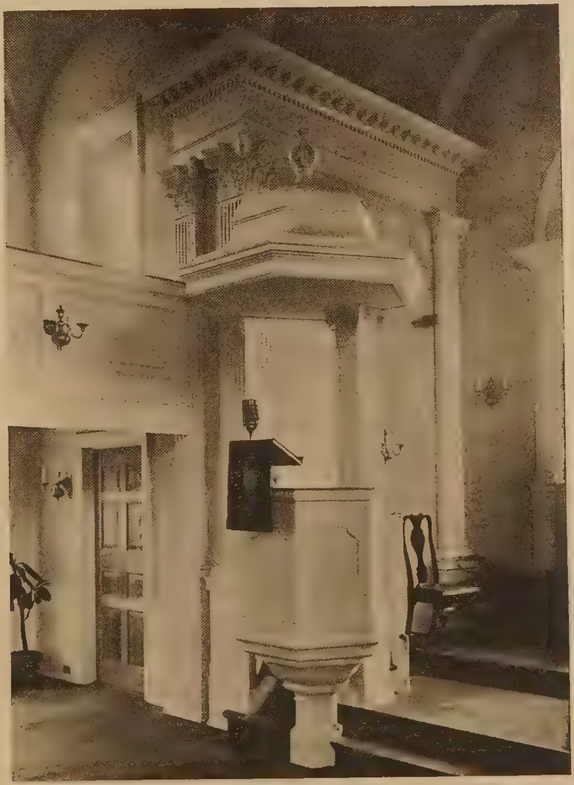
Fireplace under Gallery.



Interior, showing Gallery.



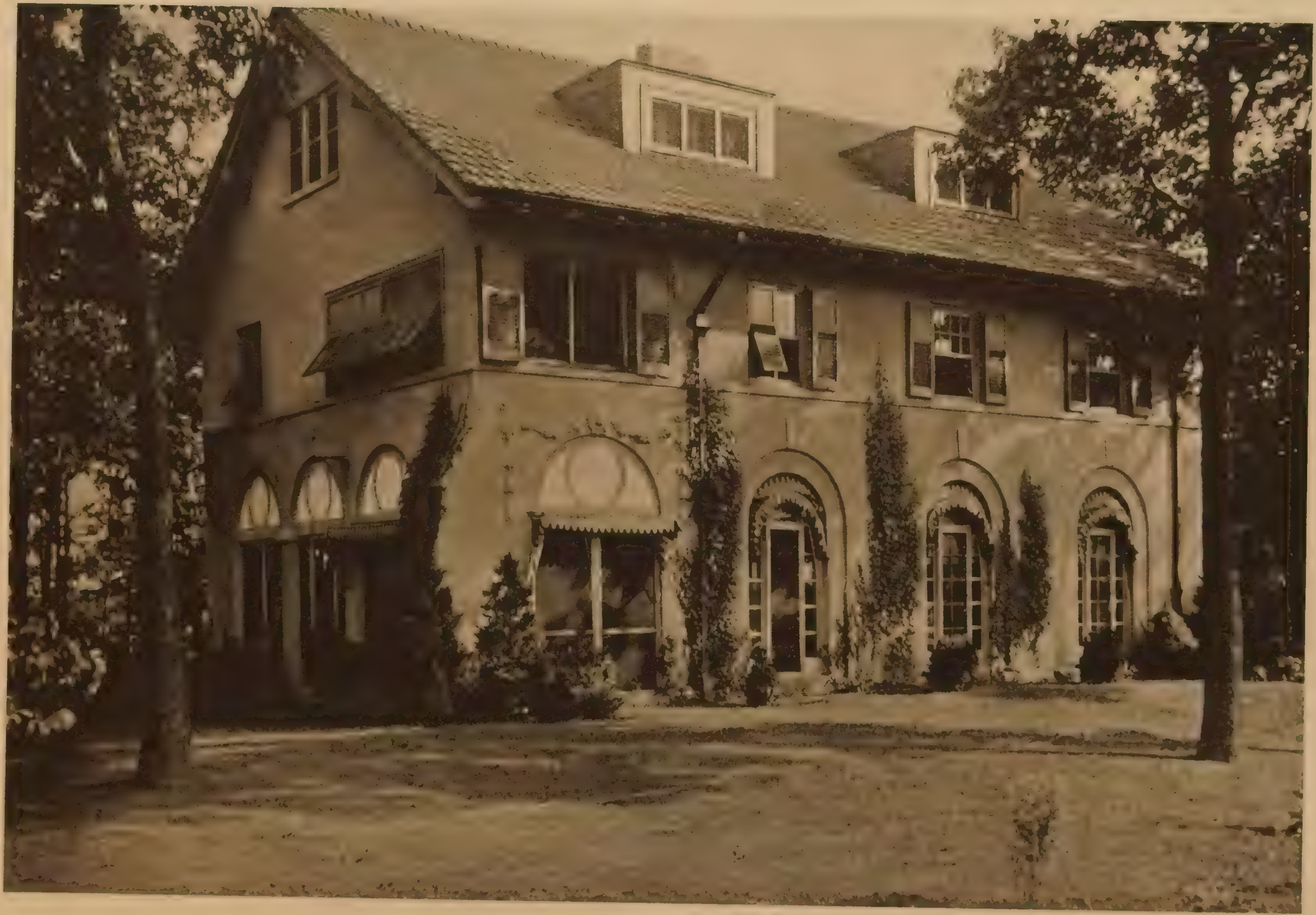
Detail, showing Lectern.



Detail, showing Pulpit.

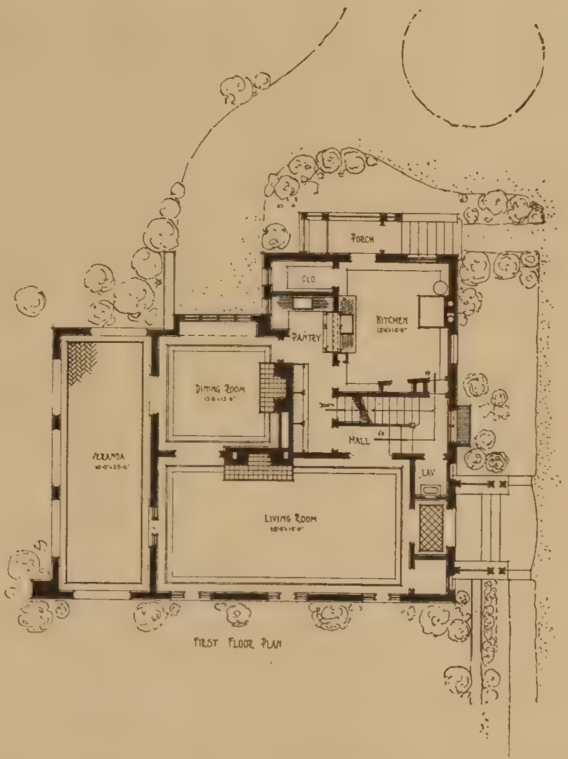
UNITARIAN MEETING HOUSE, SUMMIT, N. J.

Joy Wheeler Dow, Architect.

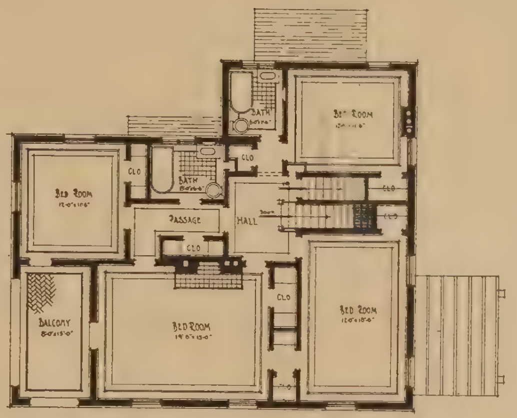


HOUSE, P. R. MAC NEILLE, SUMMIT, N. J.

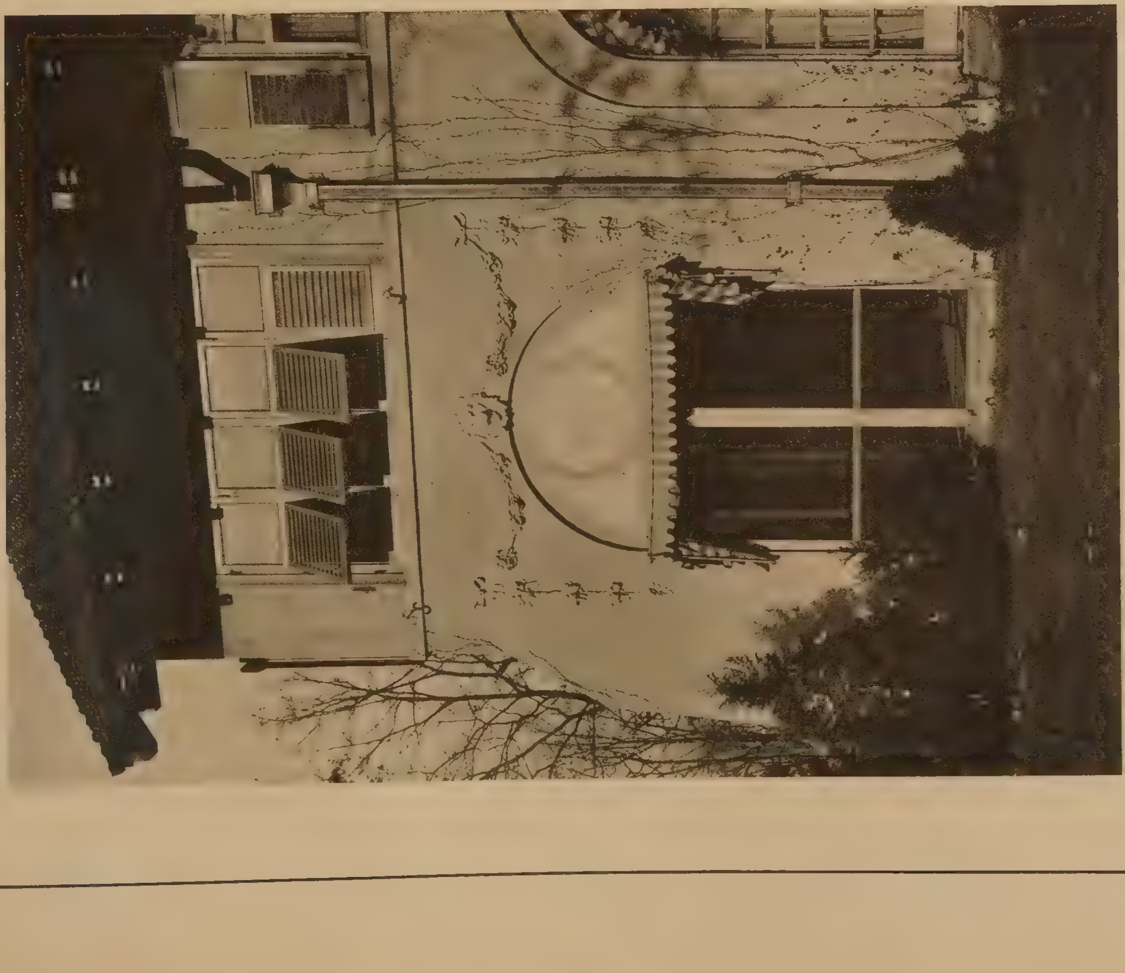
Mann & Mac Neille, Architects.



FIRST FLOOR PLAN

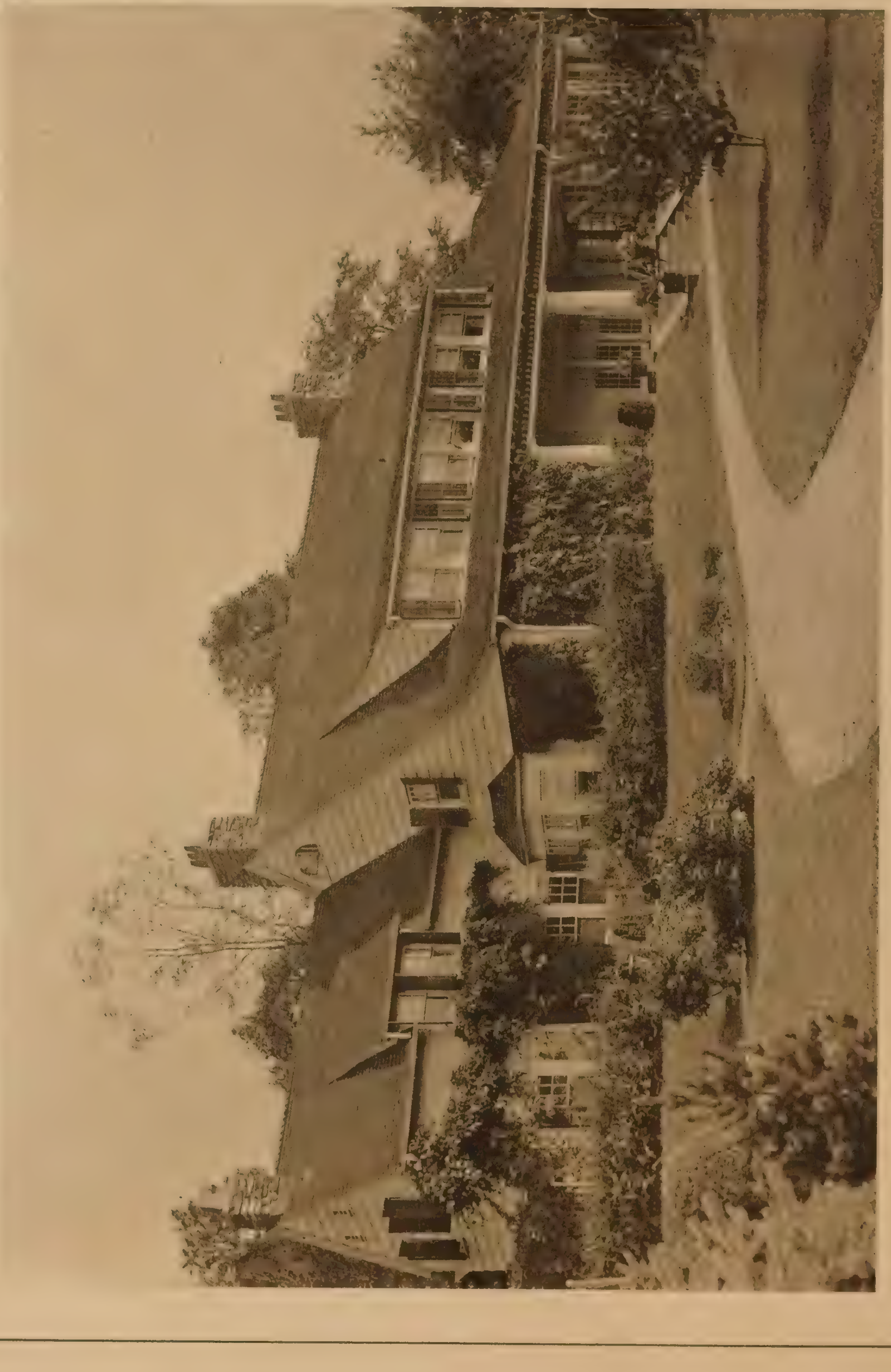


SECOND FLOOR PLAN



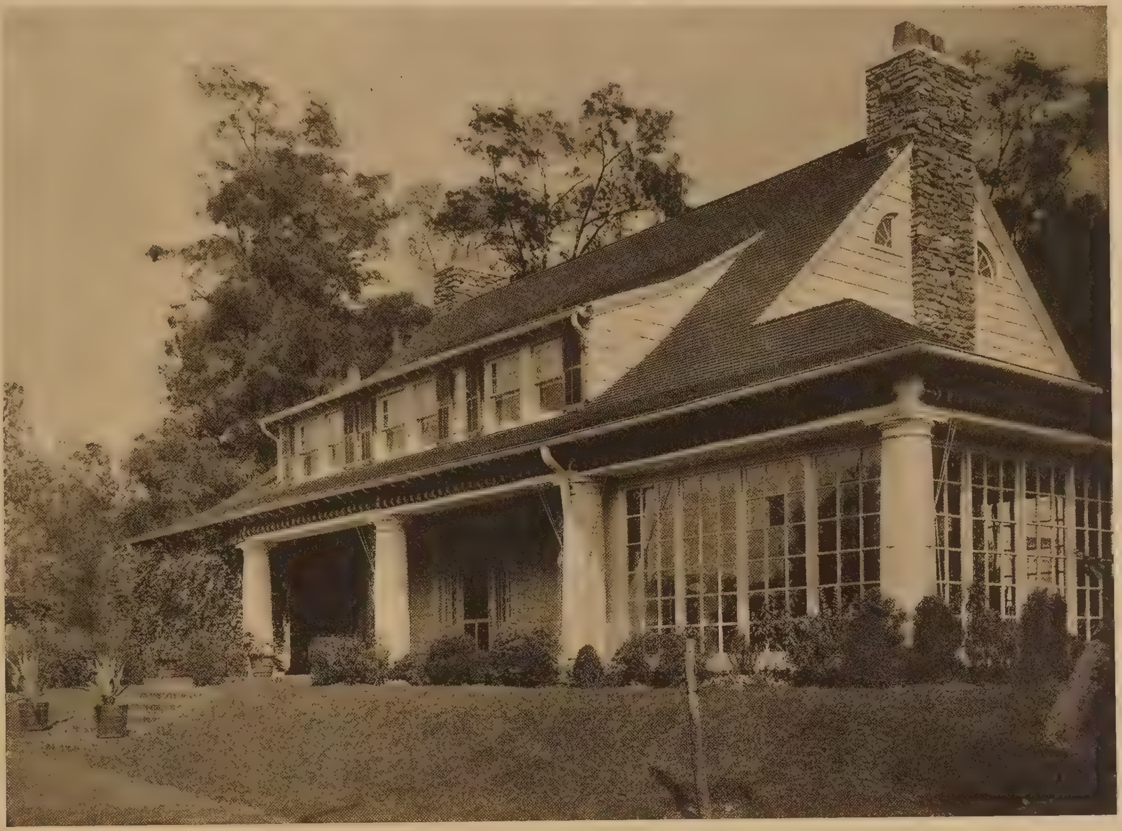
Mann & Mac Neille, Architects.

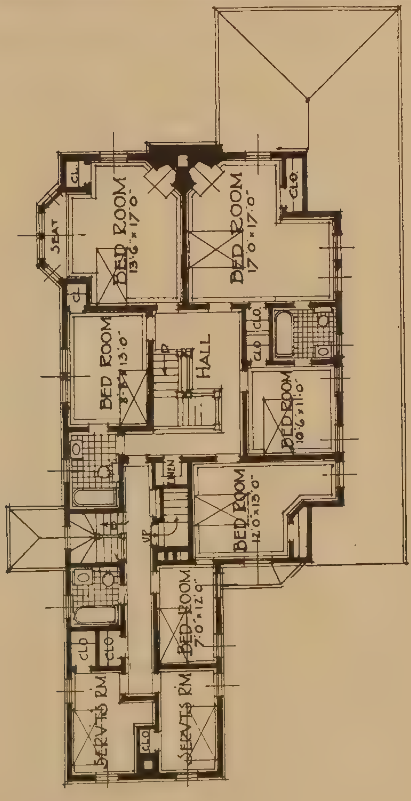
DETAIL AND PLANS, HOUSE, P. R. MAC NEILLE, SUMMIT, N. J.



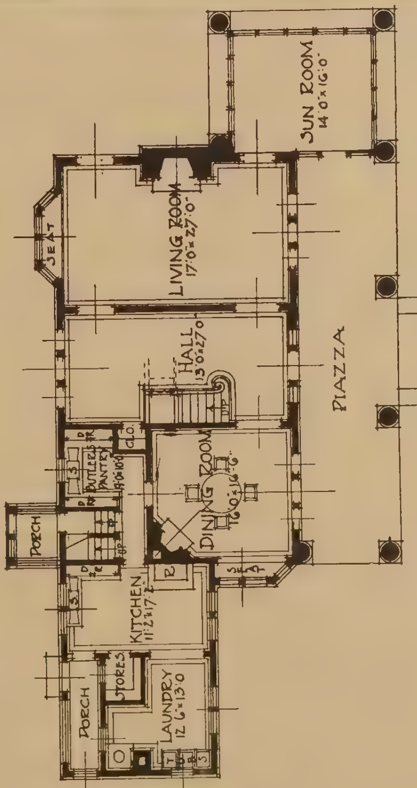
HOUSE, CHAS. RUSTON, JR., LAWRENCE PARK, BRONXVILLE, N. Y.

Bates & How, Architects.





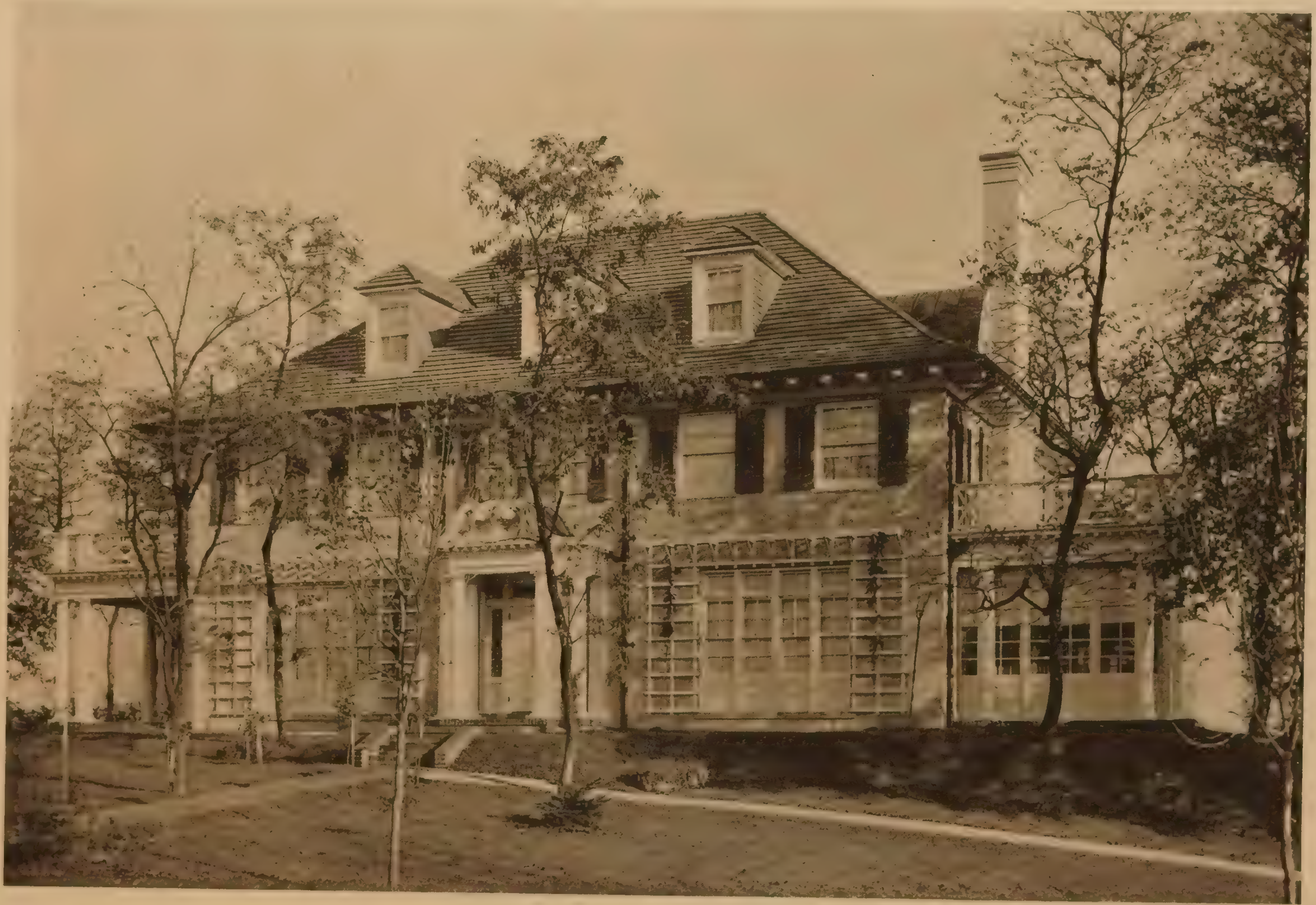
SECOND · FLOOR · PLAN ·



FIRST FLOOR PLAN.

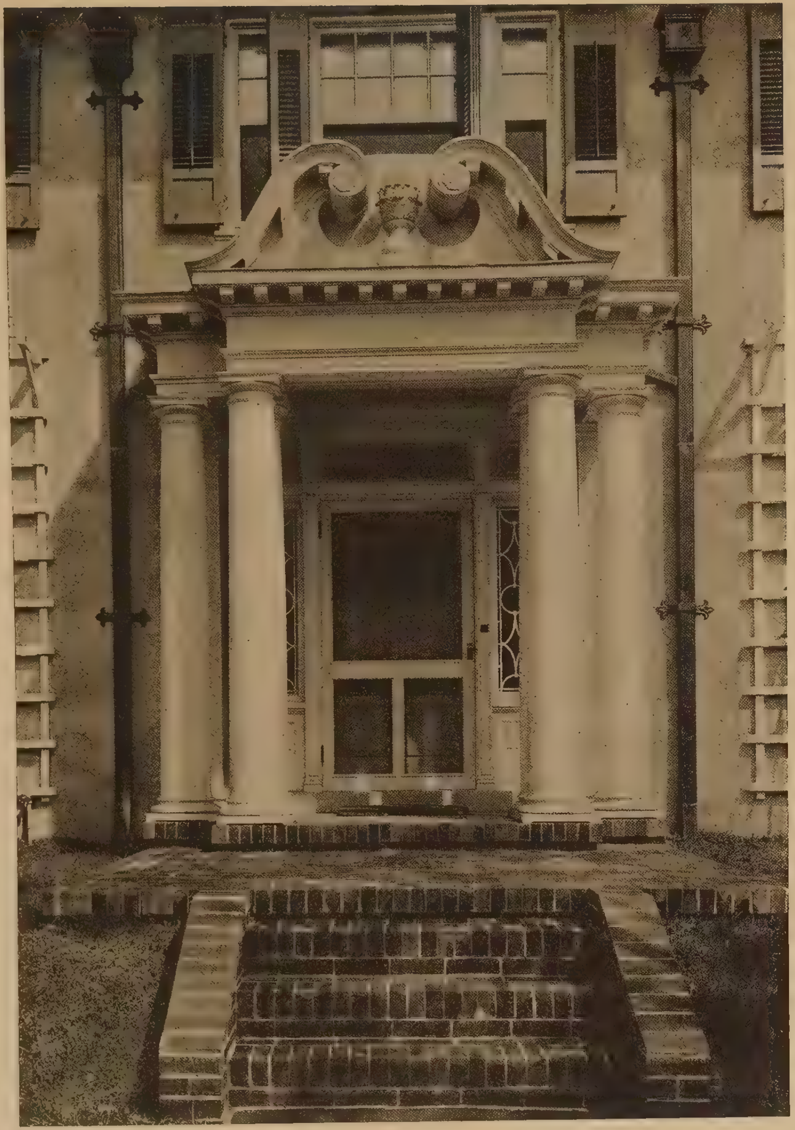
SOUTH-WEST VIEW AND PLANS, HOUSE, CHAS. RUSTON, JR., LAWRENCE PARK, BRONXVILLE, N. Y

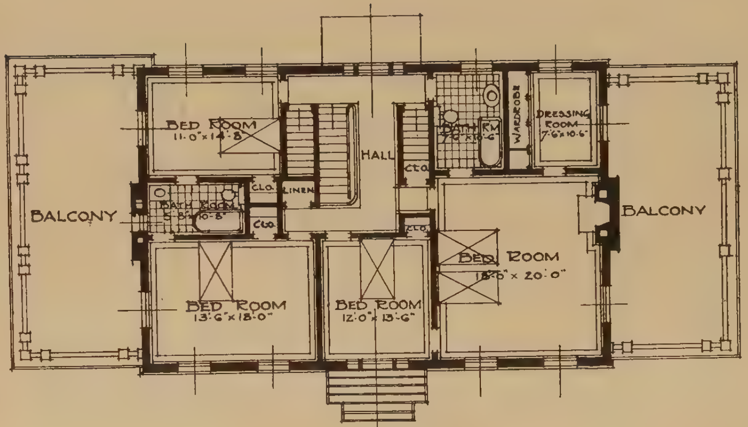
Bates & How, Architect.



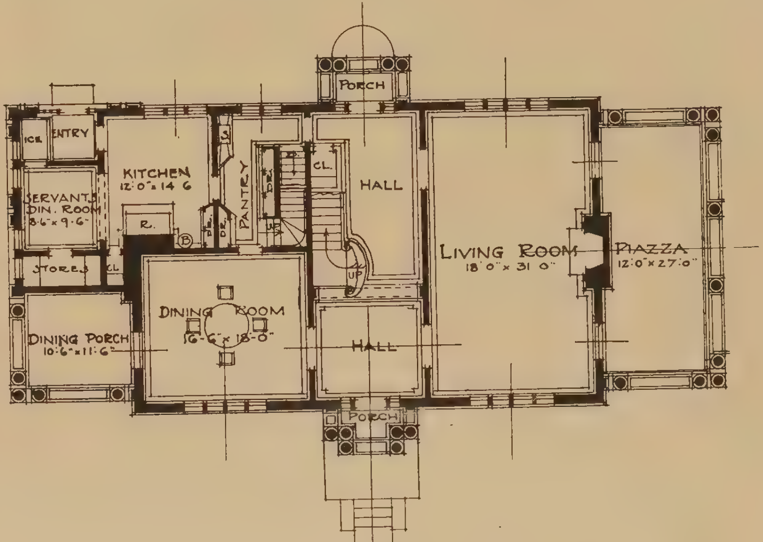
HOUSE, W. W. ELZEA, SAGAMORE PARK, BRONXVILLE, N. Y.

Bates & How, Architects.





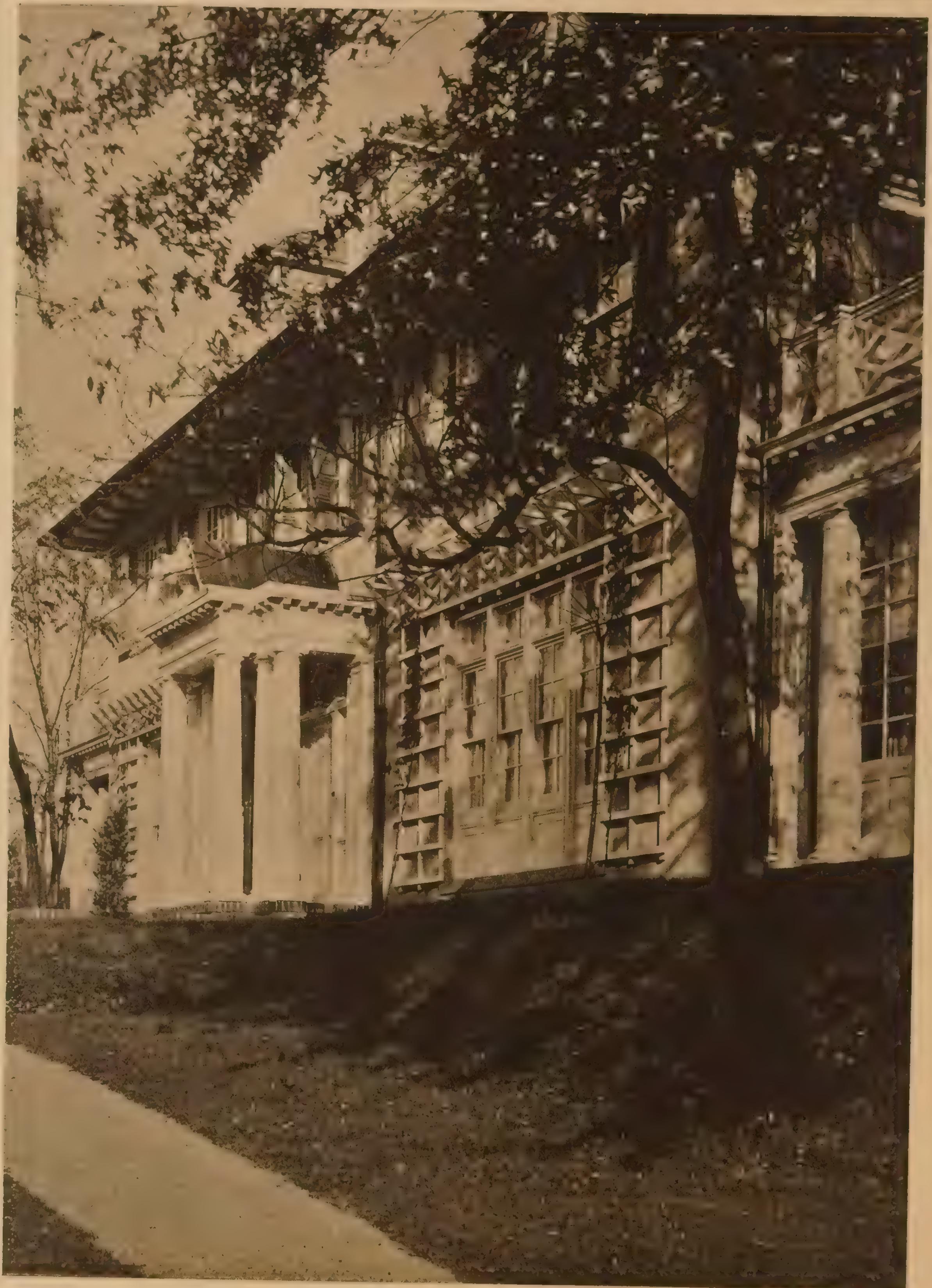
· SECOND FLOOR PLAN ·



· FIRST FLOOR PLAN

DOORWAY AND PLANS, HOUSE, W. W. ELZEA, SAGAMORE PARK, BRONXVILLE, N. Y.

Bates & How, Architects.



ENTRANCE FRONT, HOUSE, W. W. ELZEA, SAGAMORE PARK, BRONXVILLE, N. Y. Bates & How, Architects

(Continued from page 61)

Considerations such as these, which ignore precedent and association, and take solely into account the effect of certain abstract forms one upon the other, will lead to a desirable study of architectural elements, not as of this or that style or order, but as masses large and small that have certain intrinsic æsthetic properties. No one can altogether ignore precedent—the idea is a delusion. But there is a world of difference between thoughtless copying and the cautious adoption of old features after thorough analysis in the light of study of abstract form. If there be but angles and curves in the elements of architecture, however we may break up its component parts, then, allowing for the effect of fitness, and discounting the effects of color, texture, and association, in the intrinsic form itself abides the power to interest and please, or the power to cause offense. If we study architecture on these lines, we should no doubt, for one thing, abandon the isolated triglyph, which, at its best, is a crude chamfering stopped in a not over-graceful manner. If we introduce the delicately-sculptured metope, the triglyph becomes of high æsthetic value. Its rigid, rectilineal figure forms the finest possible foil to the curvilineal forms in the metope. The effect of corona shadow gives a jagged outline, still further contrasting and enhancing the softly-modelled sculpture; but to exhibit triglyphs on plain frieze is to show frame without picture, pedestal without statue. If we reflected that the elements of architecture are of two basic forms only, and that harmony results from a wise discrimination of the relative effects of such when brought into opposition, we should either have plain Doric friezes, or find the cost of sculpture sufficiently rich in beautiful curves to justify such a rigid rectilineal device as the triglyph. It has long been seen that an array of plain cylindrical columns appears heavy and "sleek"; so that the traditional custom has been to flute the drums. It may be that the present, or recent, taste for coarse, rectangular rustications has arisen from a general revolt from this sleekness of plain round columns. But surely there is a better way open. Of all poor effects, the marshalling of plain stone columns or circular pilasters, as such might be termed, along and attached to plain walling, is possibly one of the worst; but the introduction between these columns of rugged, rock-like, jutting and angular stone blocks, into the wall, and around windows and especially massing under the architrave of cornice, produces an effect more worthy of note by architects. Viewed in sharp perspective, these rugged masses, cutting across the smooth faces of the round columns, show what may be effected by intelligent contrast of the angular to the curvilineal elements of architecture.

MEASURING AND QUANTITY SURVEYING

BY GEORGE CORDEROY

Extract from a paper read before the London Surveyors' Institute

AFTER a very long experience of all the methods of obtaining estimates I am of opinion that the fairest method to all parties is the competitive system, tenders being obtained upon the basis of particulars prepared by a surveyor of experience. Incidentally this system gives the best opportunity to young surveyors in their early practice, and also to young and enterprising contractors to establish themselves in business. In my judgment, the ideal arrangement with regard to any important work is the following:

(1) That the architect or engineer should concern himself principally with the preparation of the design and the execution of the work, and the obtaining of the finished result within the period of time laid down in the contract.

(2) That the surveyor should either prepare quantities or a schedule and all documents for the purpose of obtaining tenders, and, where the work is done on schedule, measure it as it proceeds, and, when by lump-sum estimate, deal with the valuation of all variations in design as they arise from time to time, and finally settle up the accounts under either system of contract.

(3) That the contractor should be left a free hand as to the method to be employed in carrying out the work, the architect or engineer only concerning himself with the quality and character of the finished work, and seeing that it conforms to his design, and the surveyor with the valuation of the work ordered to be done by the architect or engineer.

Under an arrangement of this kind the employer has the great advantage of the combined energies of three separate orders of mind in producing the best-designed work, the best-constructed work, and the most economically-executed work. Another important advantage arising from the employment of a surveyor for the preparation of quantities or a schedule is that, as it is necessary for him to collate and carefully compare all documents and analyze all details, he is able to discover whether by inadvertence any point has escaped attention in the preparation of the drawings, specification, and general conditions of contract, and to see that nothing is omitted, and, further, to see that the drawings and contract documents are all in harmony. A surveyor of experience should be able to promote the smooth and expeditious conduct of operations, to obviate friction, avoid claims, and enable all parties to a contract to know precisely what they have to do, and forecast how much the ultimate expenditure upon any given work will be. Of course, if this forecast is made when the contract is let, it may be affected, while the work proceeds, by orders given for variation in its extent or character (by way of extra work or the omission of work originally contemplated), or by a change in the conditions under which it was proposed to carry out the contract. This last is often a very important element in enhancing the cost of executing works. I venture to think that if the surveyor were generally kept more closely advised of variations made during the progress of work carried out under a contract, and of alterations made in its terms, unpleasant surprises as to the amount of the final account would be less frequent. It must never be forgotten that surveyors' powers under contracts are strictly limited to making up an account of work done upon the basis of an agreed set of facts placed before them by the parties thereto. They have no control over the conduct of the work, and therefore the principal element affecting ultimate cost. Their position is very much that of an accountant's, with the important addition that, under the terms of most contracts, they usually value as well as bring to account the work executed.

BOOK REVIEWS.

Colonial Architecture for Those About to Build. Herbert C. Wise and H. Ferdinand Beidleman. 1913. J. B. Lippincott Co., Philadelphia. Profusely illustrated. Cloth, $5.00.

The subject and illustrations are confined to a comparatively limited locality, which is, nevertheless, rich in excellent examples of Colonial work. The authors endeavor to set forth a comprehensive survey of the best eighteenth century work in and about Philadelphia, New Jersey and Delaware. In these colonies there was an intermingling of four nationalities whose presence influenced the architecture in nicety and character not found elsewhere.

Brunelleschi.—A poem by John Galen Howard, 1914. John Howell, Publisher, San Francisco. Price $6.00.

This work of interpretation, largely written in Florence, the scene of Brunelleschi's career, is the outcome of the author's study and thought through many years. It is in metrical form because its conception, character and purpose admitted of no other treatment. Brunelleschi, "Father of the Renaissance," was not only typically an architect, but, like so many of the artists of that period and perhaps of others, essentially poetic in temperament. It is strange that an artist of his distinction and importance should have remained so shadowy a figure, in spite of the considerable number of facts known about his life. The purpose of this poem is in some measure to portray the man, and at the same time to make the architect, as a type, more readily intelligible to the world. The book is printed in red and black on Etruria handmade paper from Italy. It is in the form of a Royal octavo of about 112 pages, and set in type cut by William Caslon in 1722. The binding is blue Ancona boards with a uniform slip case. The making of the book is entrusted to Taylor, Nash & Taylor, of San Francisco, under the supervision of John Henry Nash, whose work has a national reputation. The edition is limited to 480 numbered copies, printed from type and the type distributed.

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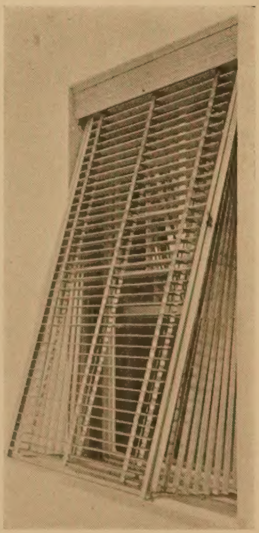

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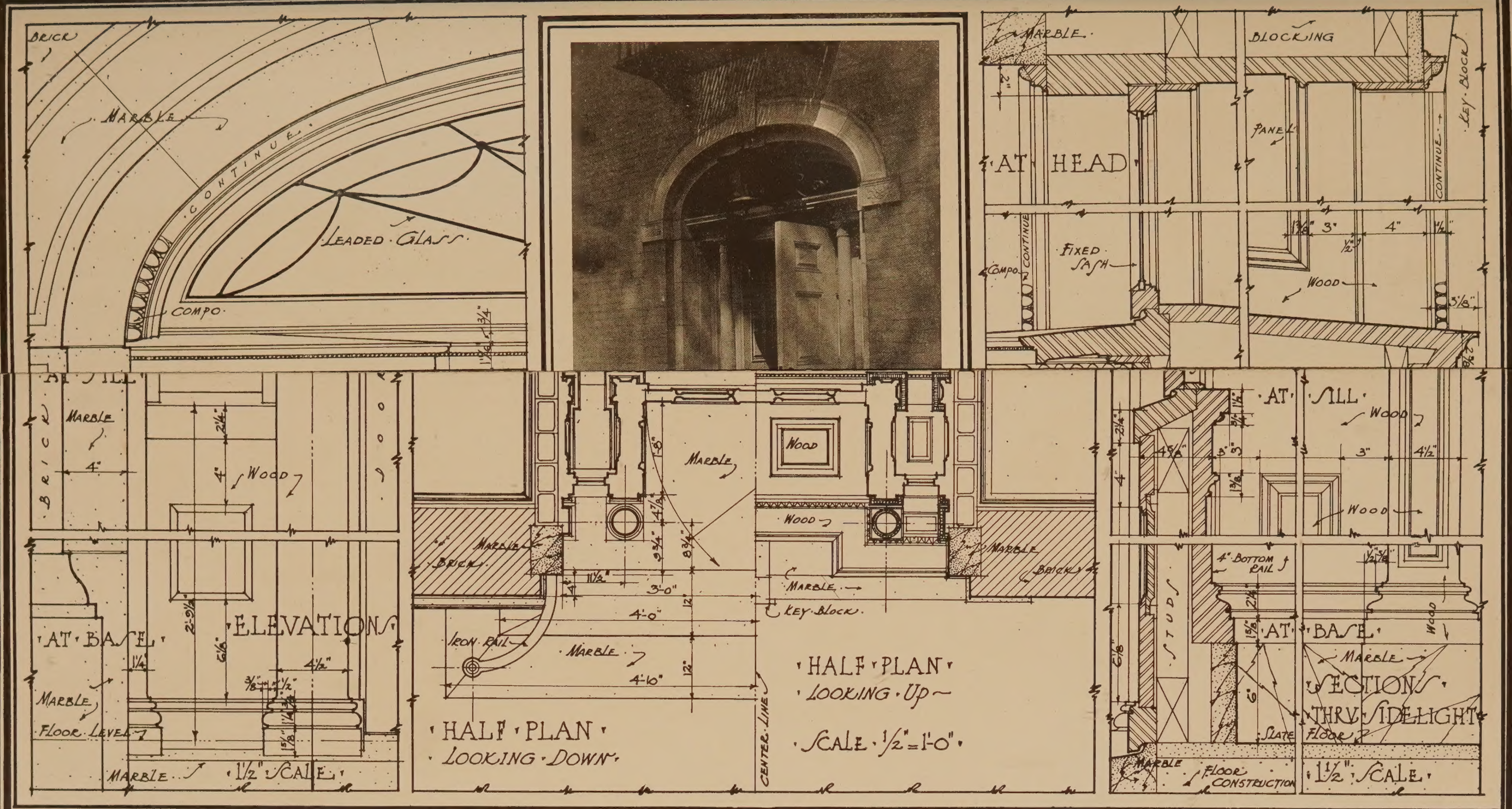

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